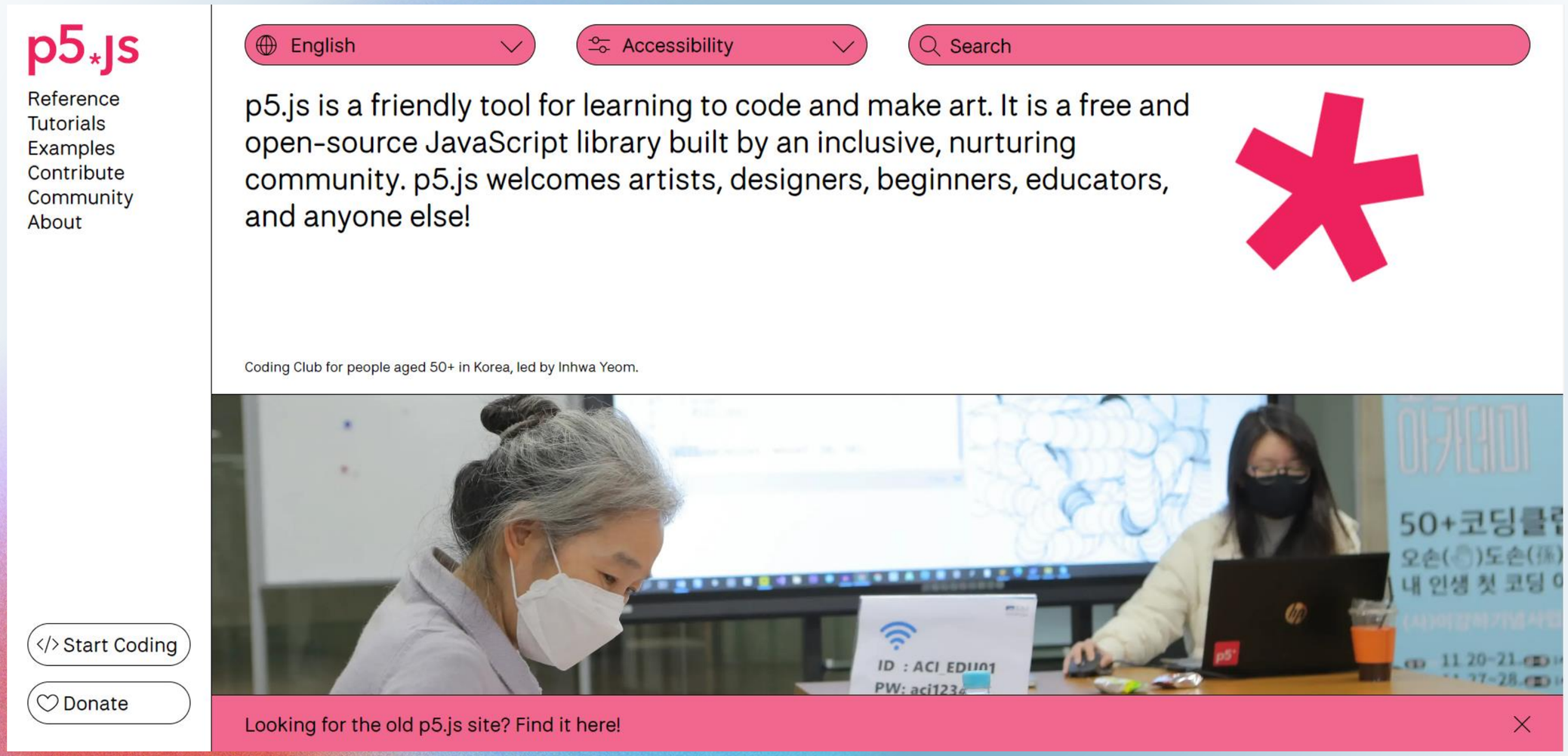
Mellon Foundation

UPR CARIBE DIGITAL CECD

TALLER DE CODIFICACIÓN

PROF. VÍCTOR TORRES RODRÍGUEZ
UPR CARIBE DIGITAL
11 ABR 2025



‘P5.JS’ (2013)

LAUREN MCARTHY

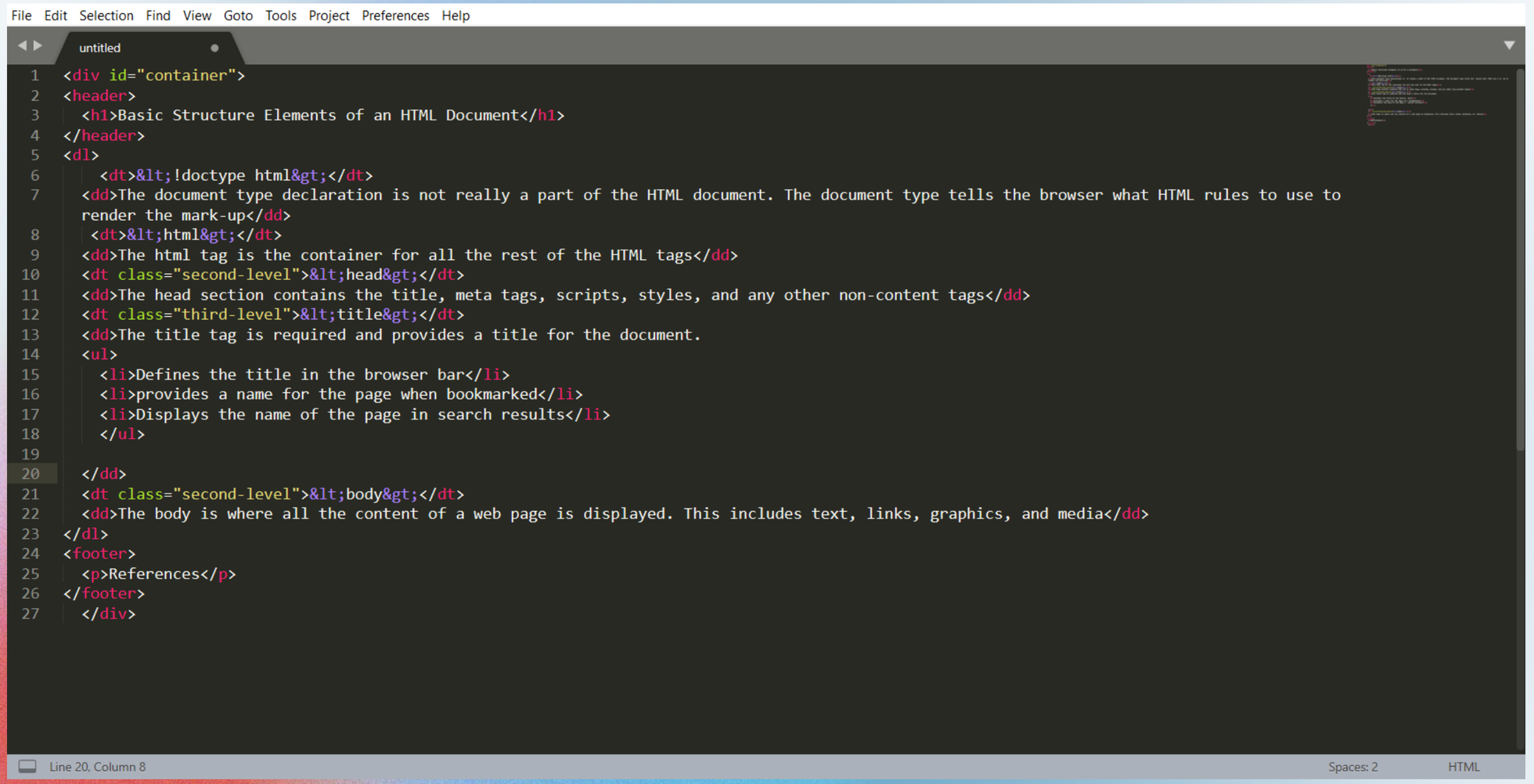
enlace

```
15
16  const LOCALE = globalThis.navigator.language
17
18  const div = document.body.appendChild(document.createElement('div'))
19  const list = div.appendChild(document.createElement('ol'))
20
21  const dayNames = new Map()
22
23  for (let i = 0; i < 7; ++i) {
24      const d = Temporal.PlainDate.from({
25          year: Temporal.Now.plainDateISO().year,
26          month: 1,
27          day: i + 1,
28      })
29
30      dayNames.set(d.dayOfWeek, d.toLocaleString(LOCALE, { weekday: 'long' }))
31  }
32
33  for (const num of [ ...dayNames.keys()].sort((a, b) => a - b)) {
34      list.appendChild(Object.assign(
35          document.createElement('li'),
36          { textContent: dayNames.get(num) },
37      ))
38  }
39
```

‘JAVASCRIPT’ (1995)

NETSCAPE COMMUNICATIONS

enlace



‘HTML’ (1993)

W3C

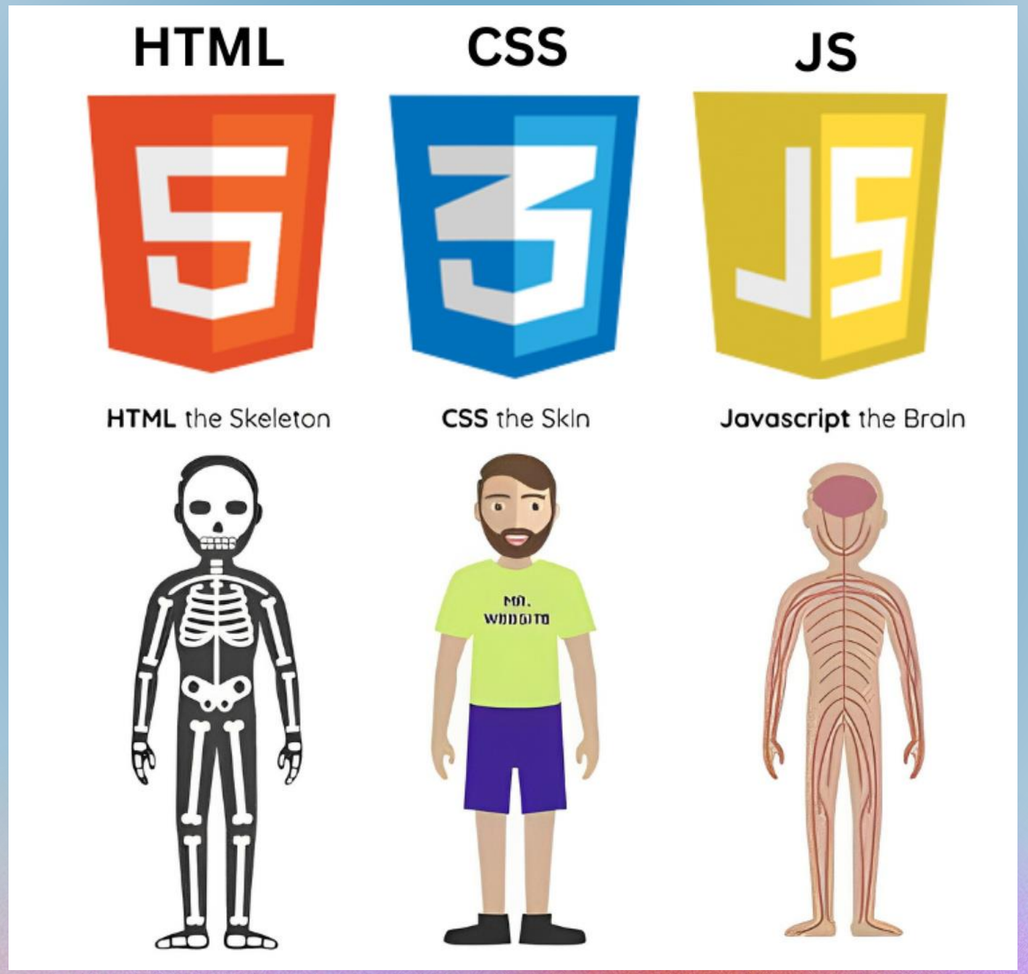
enlace

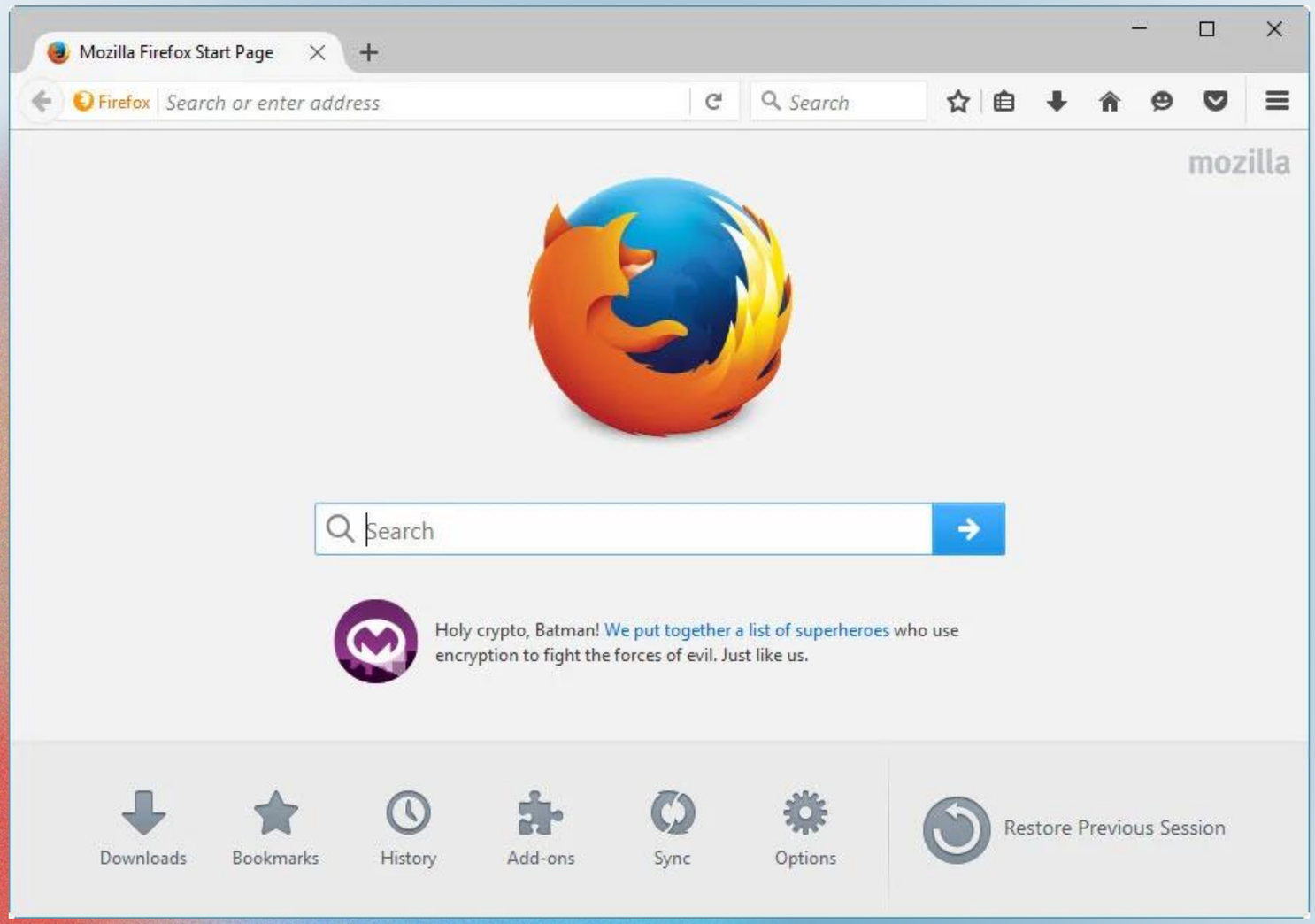
```
.screen-reader-text:hover,
.screen-reader-text:active,
.screen-reader-text:focus {
    background-color: #f1f1f1;
    border-radius: 3px;
    box-shadow: 0 0 2px 2px rgba(0, 0, 0, 0.6);
    clip: auto !important;
    color: #21759b;
    display: block;
    font-size: 14px;
    font-size: 0.875rem;
    font-weight: bold;
    height: auto;
    left: 5px;
    line-height: normal;
    padding: 15px 23px 14px;
    text-decoration: none;
    top: 5px;
    width: auto;
    z-index: 100000; /* Above WP toolbar. */
}
```

‘CSS’ (1996)
W3C
enlace

Los lenguajes del internet

[enlace]





‘FIREFOX’ (2002)

MOZILLA CORPORATION

enlace

Kenneth Goldsmith

ON UNCREATIVE WRITING
(2015)

enlace

“El internet es el poema más grandioso jamás escrito, esencialmente ilegible por su tamaño. ***Nos estamos ahogando en lenguaje.***”

```
15
16  const LOCALE = globalThis.navigator.language
17
18  const div = document.body.appendChild(document.createElement('div'))
19  const list = div.appendChild(document.createElement('ol'))
20
21  const dayNames = new Map()
22
23  for (let i = 0; i < 7; ++i) {
24      const d = Temporal.PlainDate.from({
25          year: Temporal.Now.plainDateISO().year,
26          month: 1,
27          day: i + 1,
28      })
29
30      dayNames.set(d.dayOfWeek, d.toLocaleString(LOCALE, { weekday: 'long' }))
31  }
32
33  for (const num of [ ...dayNames.keys()].sort((a, b) => a - b)) {
34      list.appendChild(Object.assign(
35          document.createElement('li'),
36          { textContent: dayNames.get(num) },
37      ))
38  }
39
```

‘JAVASCRIPT’ (1995)

NETSCAPE COMMUNICATIONS

enlace

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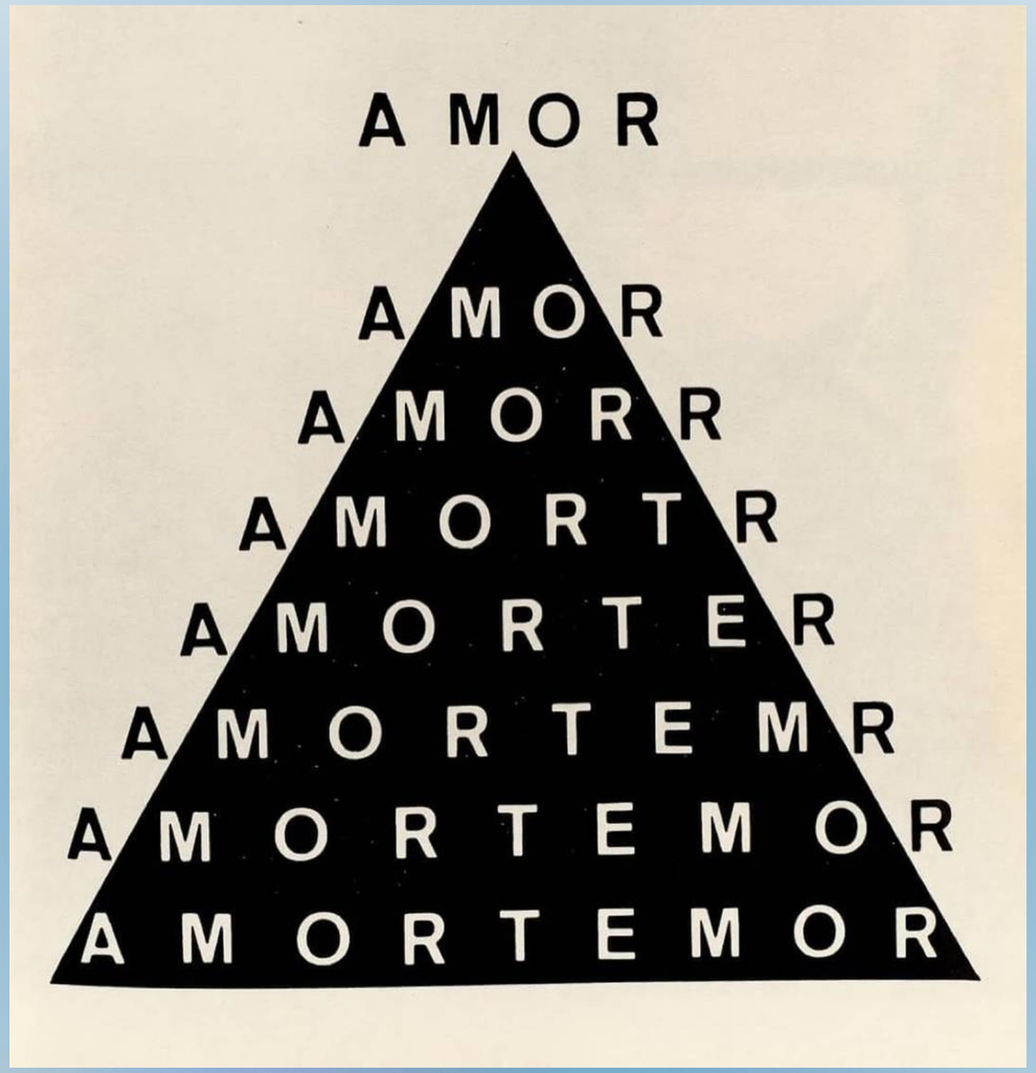
‘L(A’ (1958)
E.E. CUMMINGS
enlace



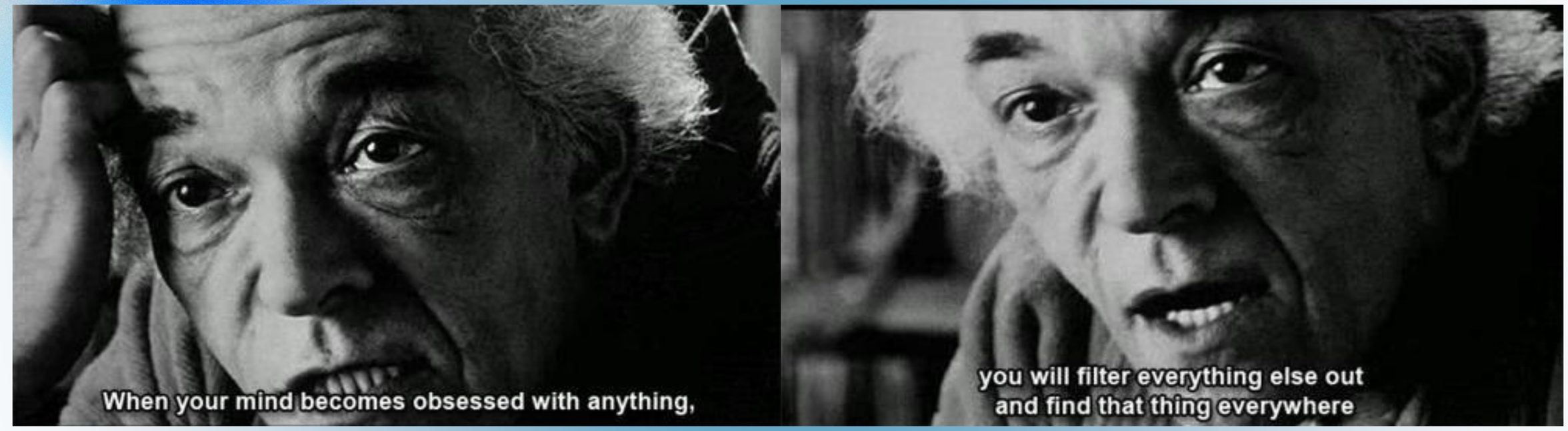
‘AMORTEMOR’ (1970)
AUGUSTO DO CAMPOS
enlace

'"SHAKE THAT ESS" CAMPAIGN' (2024)

SABRINA CARPENTER & DUNKIN DONUTS

enlace

"EVAN AND KITTER" (C.A. 2014)
ANÓNIMO
enlace



‘PI’ (1998)

DARREN ARONOFSKY

enlace

‘AMIGA 1000’ (1985)

COMMODORE

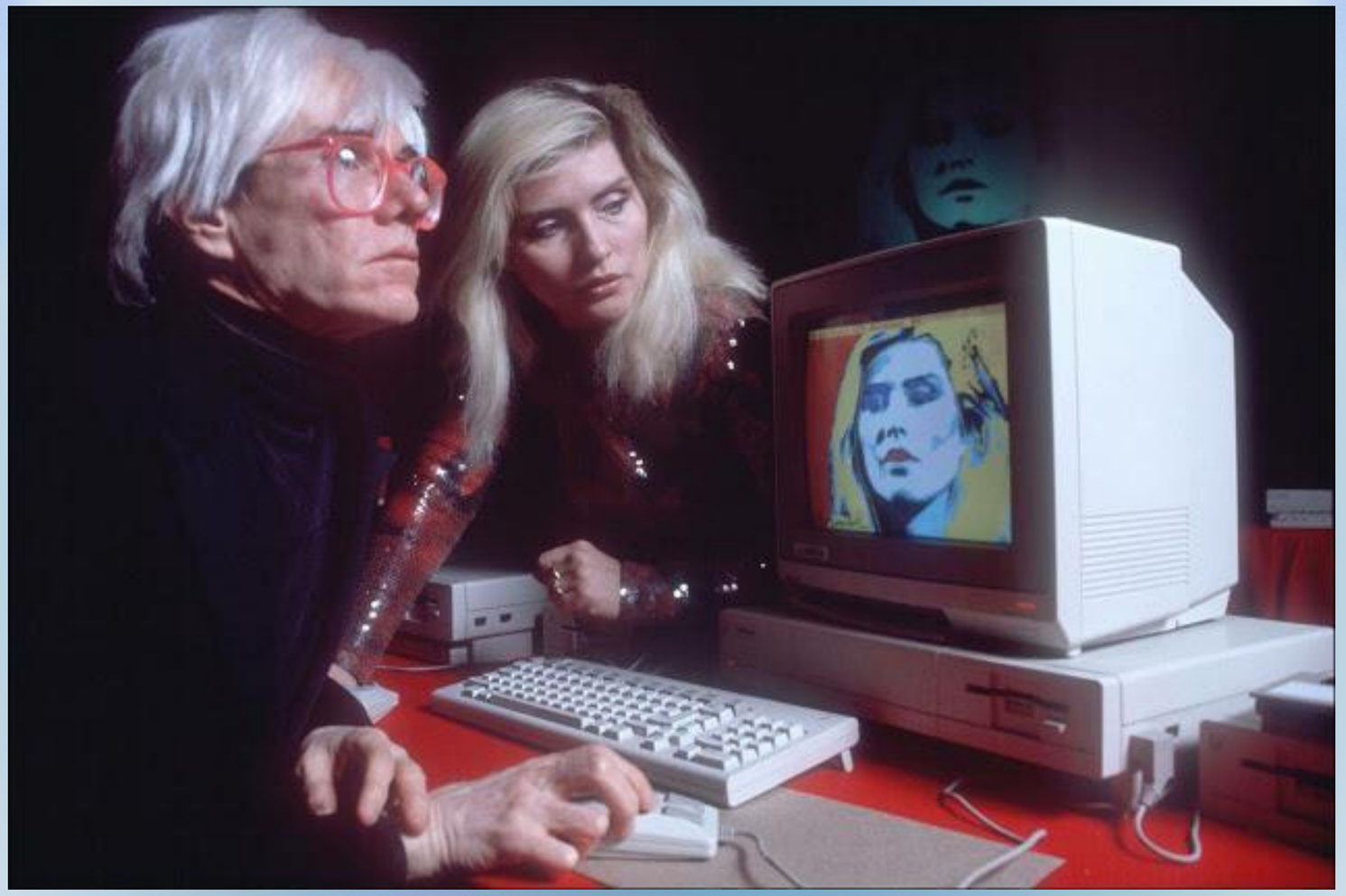
enlace

‘DINAMISMO DE UN PERRO CON CORREA’ (1912)

GIACOMO BALLA

enlace

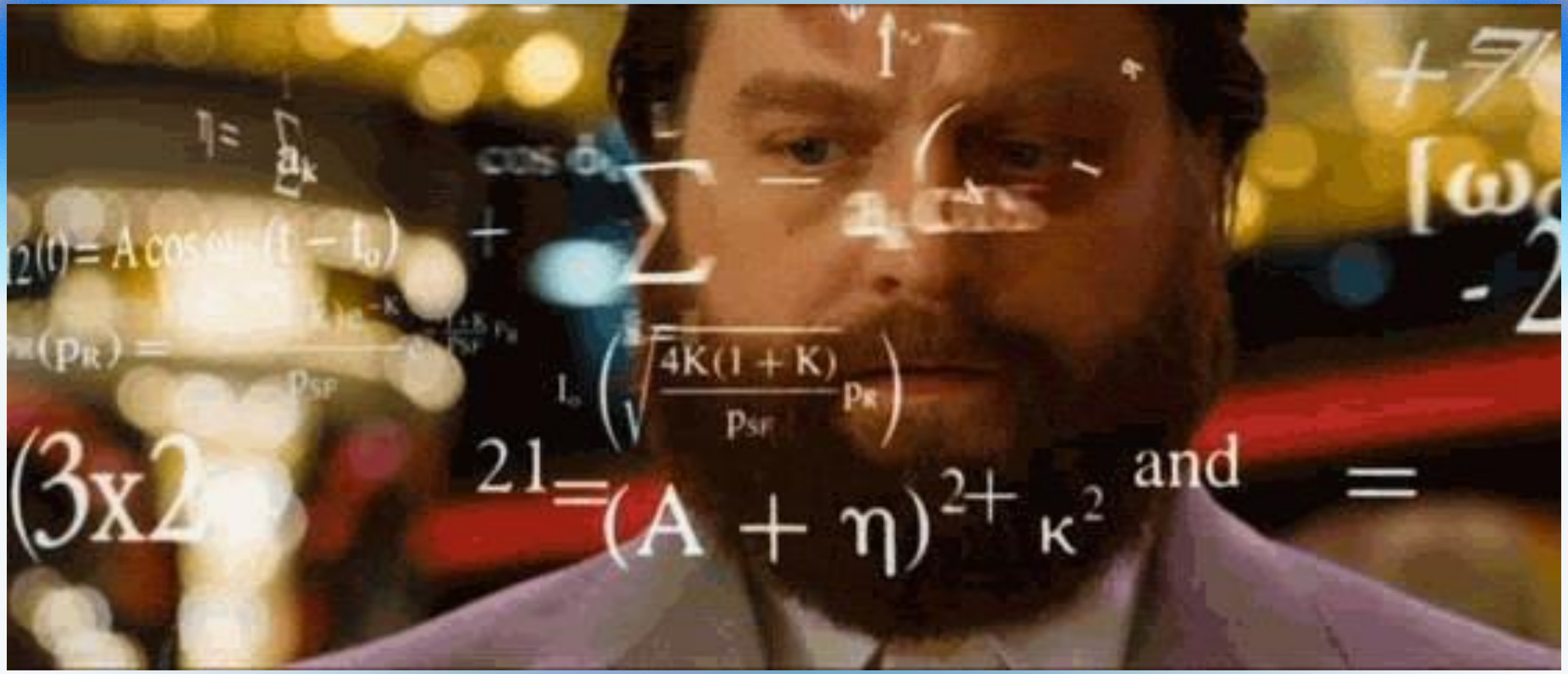
‘NEW YORK ON A BED’ (2015)
MIKESHOTYA
enlace



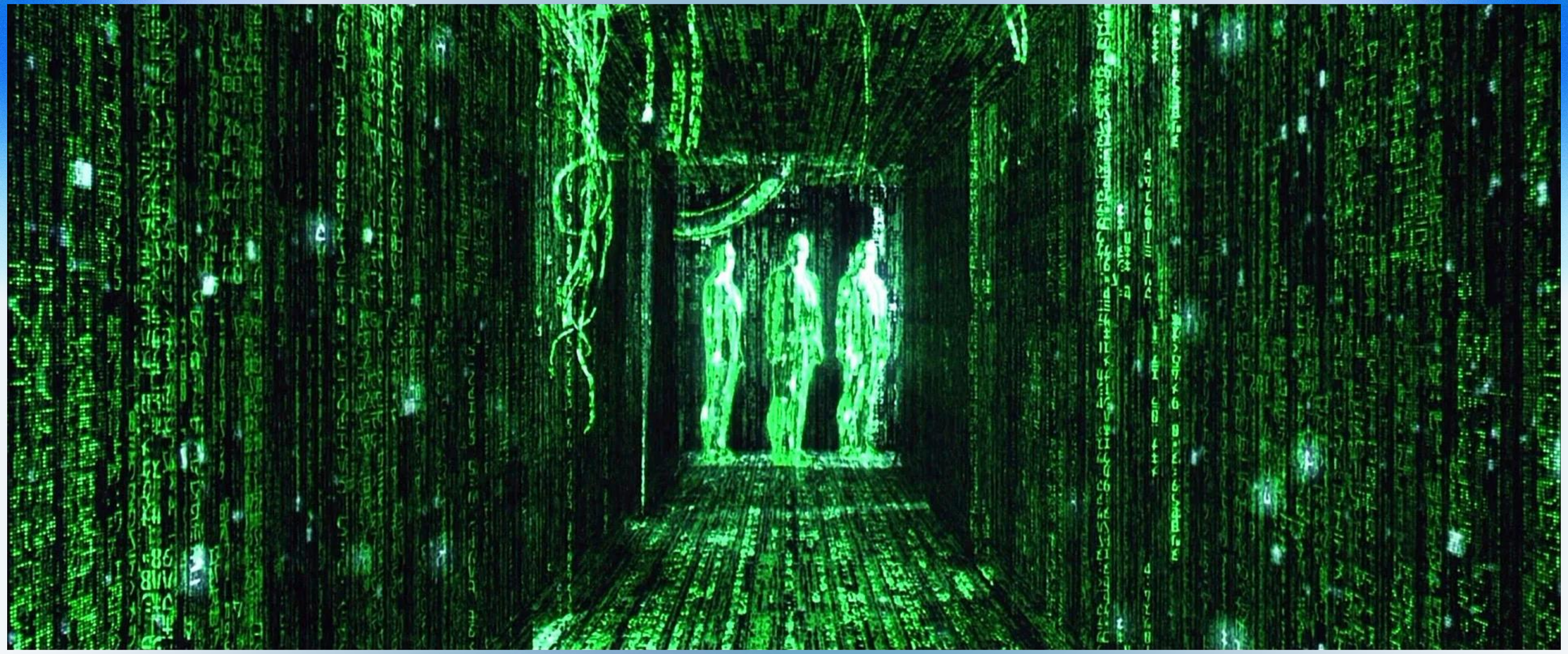
Utilizando una *AMIGA 1000* para dibujar (1985)

ANDY WARHOL & DEBBIE HARRY

enlace



ZACH GALIFIANAKIS MATH (2014)
SNEAKYRUSSIANS
enlace



‘THE MATRIX’ (1999)

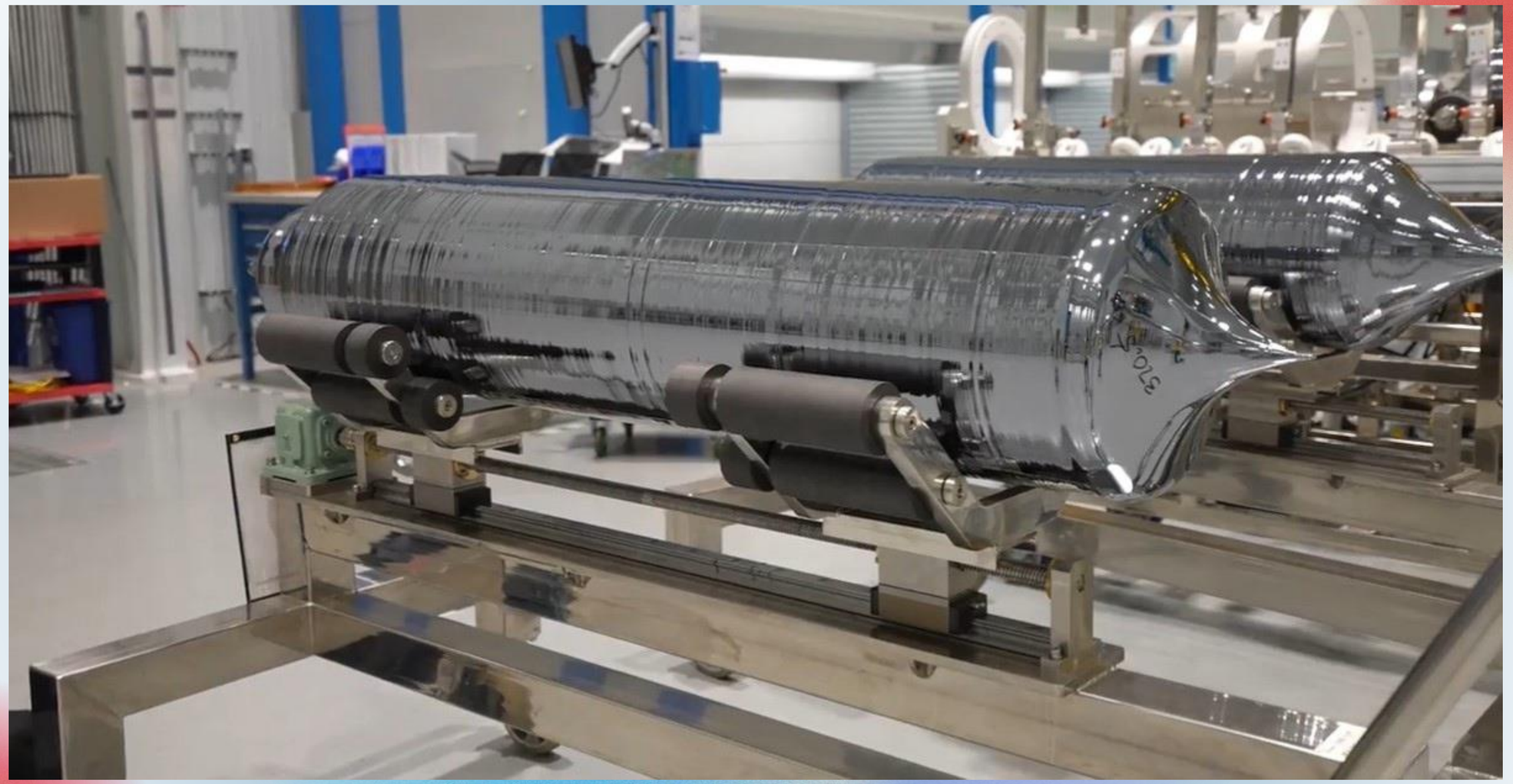
THE WACHOWSKY SISTERS

enlace

VISUALIZING THE IMPORTANCE OF RARE EARTH ELEMENTS TO OUR DIGITAL LIFESTYLE (2014)

ARIEL SCHWARTZ

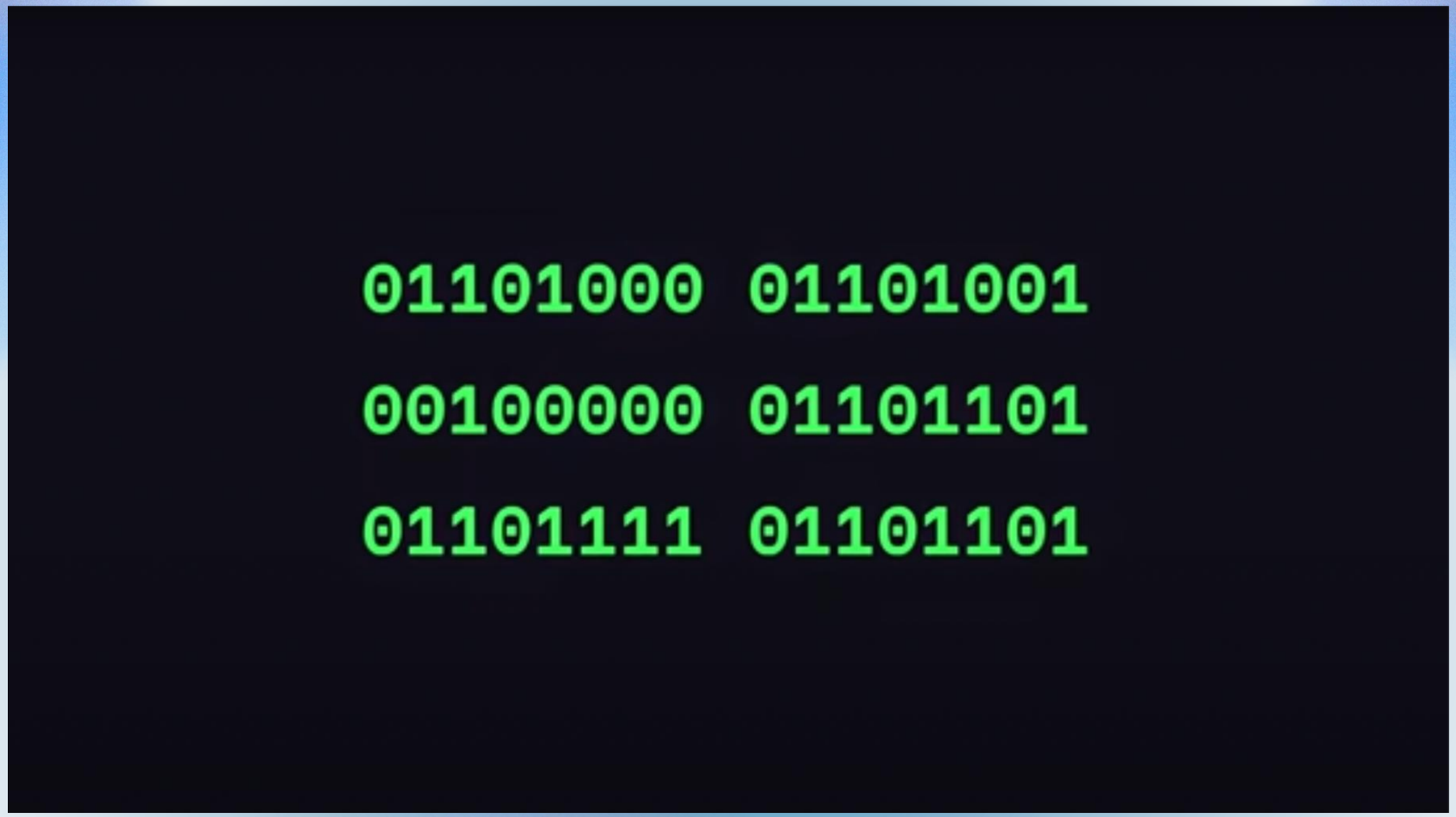
enlace



‘WHAT IS SILICON AND HOW IS IT USED FOR MICROCHIPS?’ (2023)

LAM BLOG STAFF

enlace

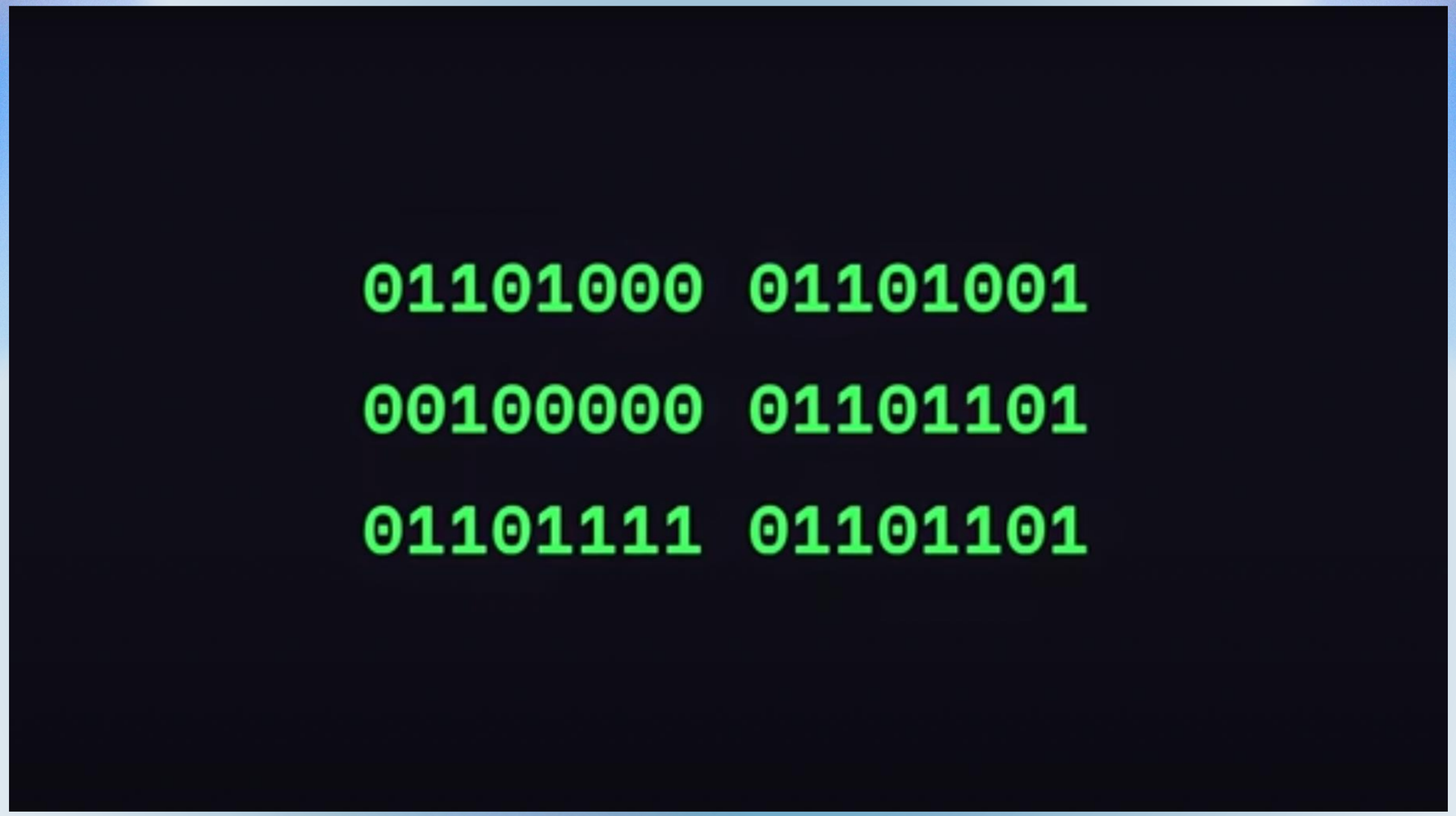


‘BINARY EXPLAINED IN 01100100 SECONDS’ (2022)
FIRESHIP
enlace

‘MATH LADY / CONFUSED LADY’ (2013)

NAZARÉ AMARGA

enlace



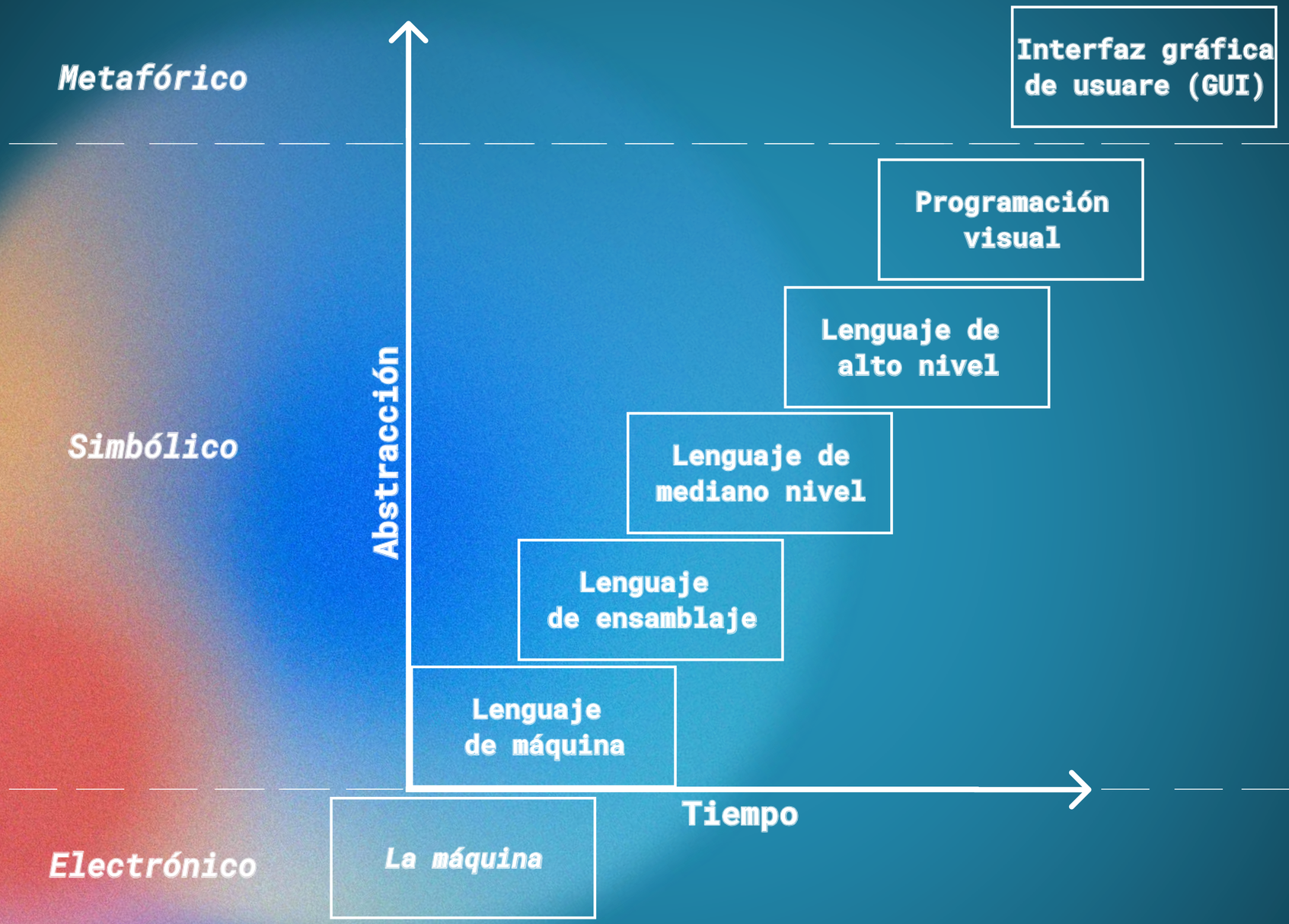
‘BINARY EXPLAINED IN 01100100 SECONDS’ (2022)
FIRESHIP
enlace

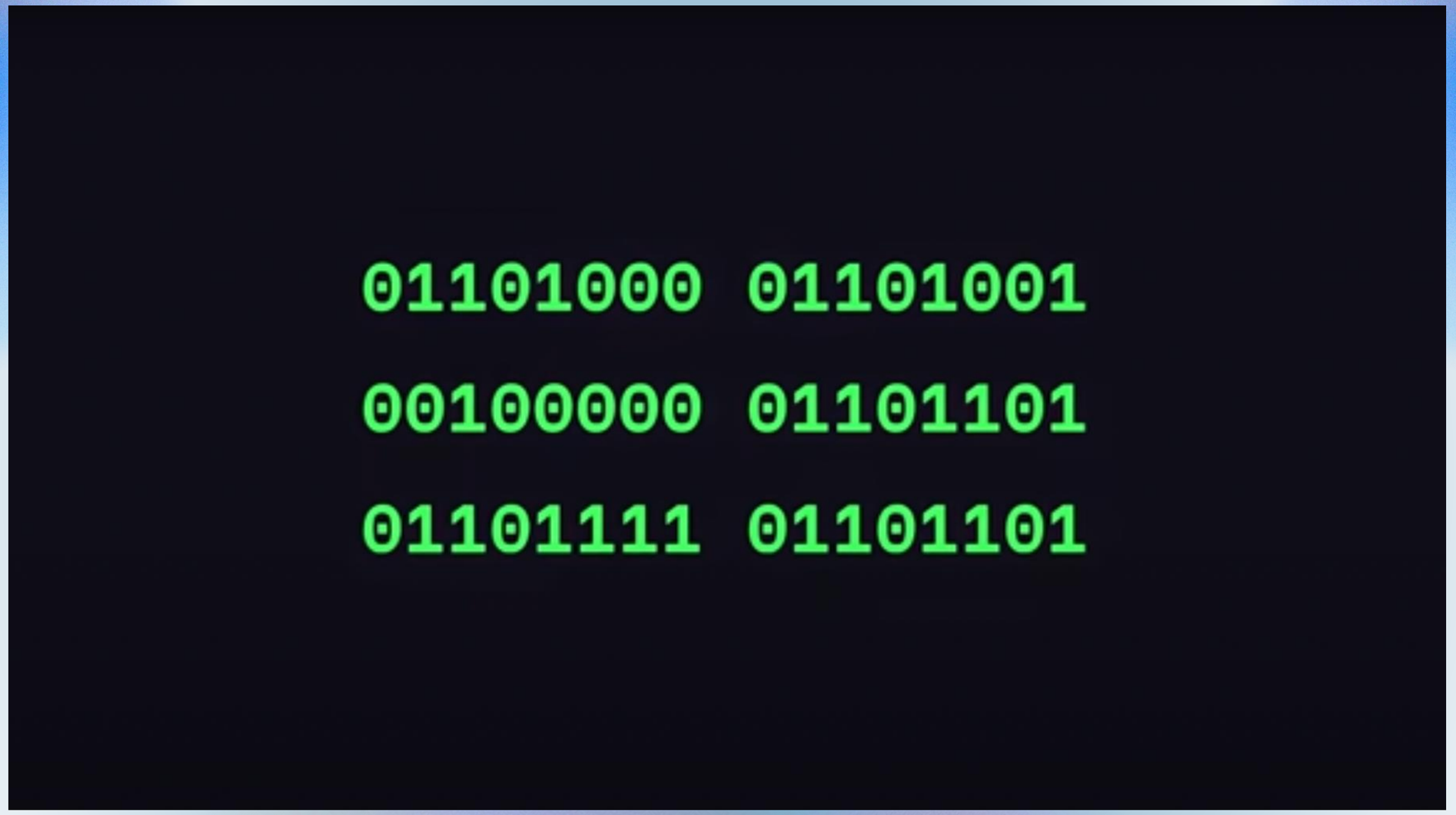
‘CORALINE’S DAD / ARE YOU WINNING, DAD?’ (2018)
DISGRUNTLEDLUNGFISH
enlace

‘TWO GUYS ON A BUS’ (2019)

VITTOR

enlace


Metafórico
Simbólico
Electrónico
Abstracción
Interfaz gráfica de usuare (GUI)
Programación visual
Lenguaje de alto nivel
Lenguaje de mediano nivel
Lenguaje de ensamblaje
Lenguaje de máquina
La máquina
Tiempo



LENGUAJE DE MÁQUINA

enlace

```
MONITOR FOR 6802 1.4          9-14-80  TSC ASSEMBLER  PAGE    2


C000                    ORG    ROM+$0000 BEGIN MONITOR
C000 8E 00 70  START    LDS    #STACK

                ***************************************
                * FUNCTION: INITA - Initialize ACIA
                * INPUT: none
                * OUTPUT: none
                * CALLS: none
                * DESTROYS: acc A

0013            RESETA  EQU    %00010011
0011            CTLREG  EQU    %00010001

C003 86 13      INITA   LDA A  #RESETA   RESET ACIA
C005 B7 80 04           STA A  ACIA
C008 86 11              LDA A  #CTLREG   SET 8 BITS AND 2 STOP
C00A B7 80 04           STA A  ACIA

C00D 7E C0 F1           JMP    SIGNON    GO TO START OF MONITOR

                ***************************************
                * FUNCTION: INCH - Input character
                * INPUT: none
                * OUTPUT: char in acc A
                * DESTROYS: acc A
                * CALLS: none
                * DESCRIPTION: Gets 1 character from terminal

C010 B6 80 04   INCH    LDA A  ACIA      GET STATUS
C013 47                 ASR A            SHIFT RDRF FLAG INTO CARRY
C014 24 FA              BCC    INCH      RECIEVE NOT READY
C016 B6 80 05           LDA A  ACIA+1    GET CHAR
C019 84 7F              AND A  #$7F      MASK PARITY
C01B 7E C0 79           JMP    OUTCH     ECHO & RTS

                ***************************************
                * FUNCTION: INHEX - INPUT HEX DIGIT
                * INPUT: none
                * OUTPUT: Digit in acc A
                * CALLS: INCH
                * DESTROYS: acc A
                * Returns to monitor if not HEX input

C01E 8D F0      INHEX   BSR    INCH      GET A CHAR
C020 81 30              CMP A  #'0       ZERO
C022 2B 11              BMI    HEXERR    NOT HEX
C024 81 39              CMP A  #'9       NINE
C026 2F 0A              BLE    HEXRTS    GOOD HEX
C028 81 41              CMP A  #'A
C02A 2B 09              BMI    HEXERR    NOT HEX
C02C 81 46              CMP A  #'F
C02E 2E 05              BGT    HEXERR
C030 80 07              SUB A  #7        FIX A-F
C032 84 0F      HEXRTS  AND A  #$0F      CONVERT ASCII TO DIGIT
C034 39                 RTS

C035 7E C0 AF   HEXERR  JMP    CTRL      RETURN TO CONTROL LOOP
```

LENGUAJE DE ENSAMBLAJE

enlace

```
35
36      /* pass reference by refernce - new instance */
37      /* can't rebind C++ reference, so must use ptr */
38      using uPtr = std::unique_ptr<std::string>;
39      auto pass_ref_by_ref(uPtr* ptr) {
40          std::cout << "\n  Pass ref by ref - new instance";
41          std::cout << "\n    contents of input *ptr = " << **ptr;
42          **ptr += " with addendum";
43          std::cout << "\n    mutated value = " << **ptr;
44          *ptr = uPtr(new std::string("a new string"));
45          std::cout << "\n    new instance  = " << **ptr;
46      }
47
```

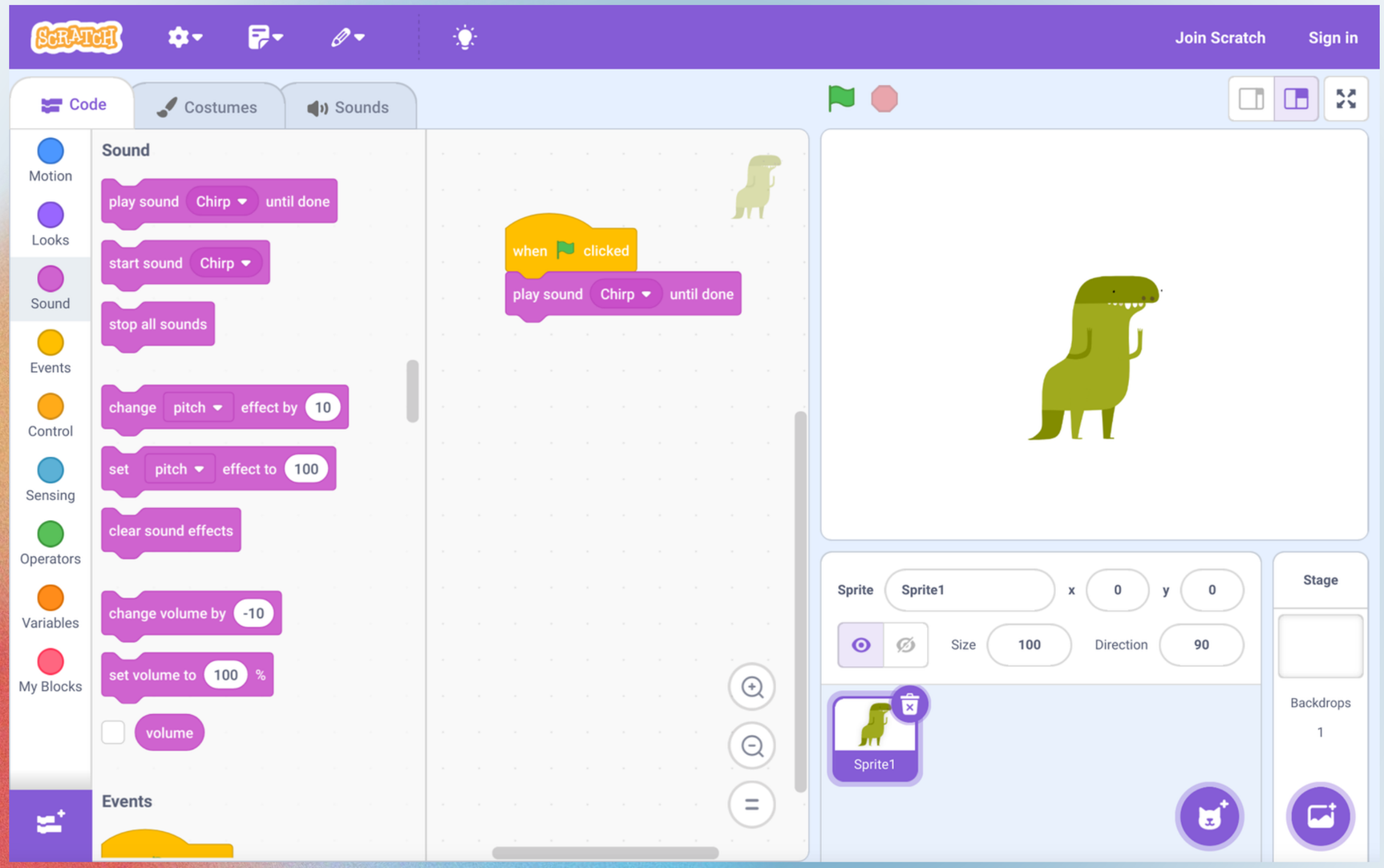
LENGUAJE DE MEDIANO NIVEL

enlace

```
const persona = {
  nombre: "Juan",
  edad: 30,
  saludar: function() {
    console.log("Hola, soy " + this.nombre);
  }
};
```

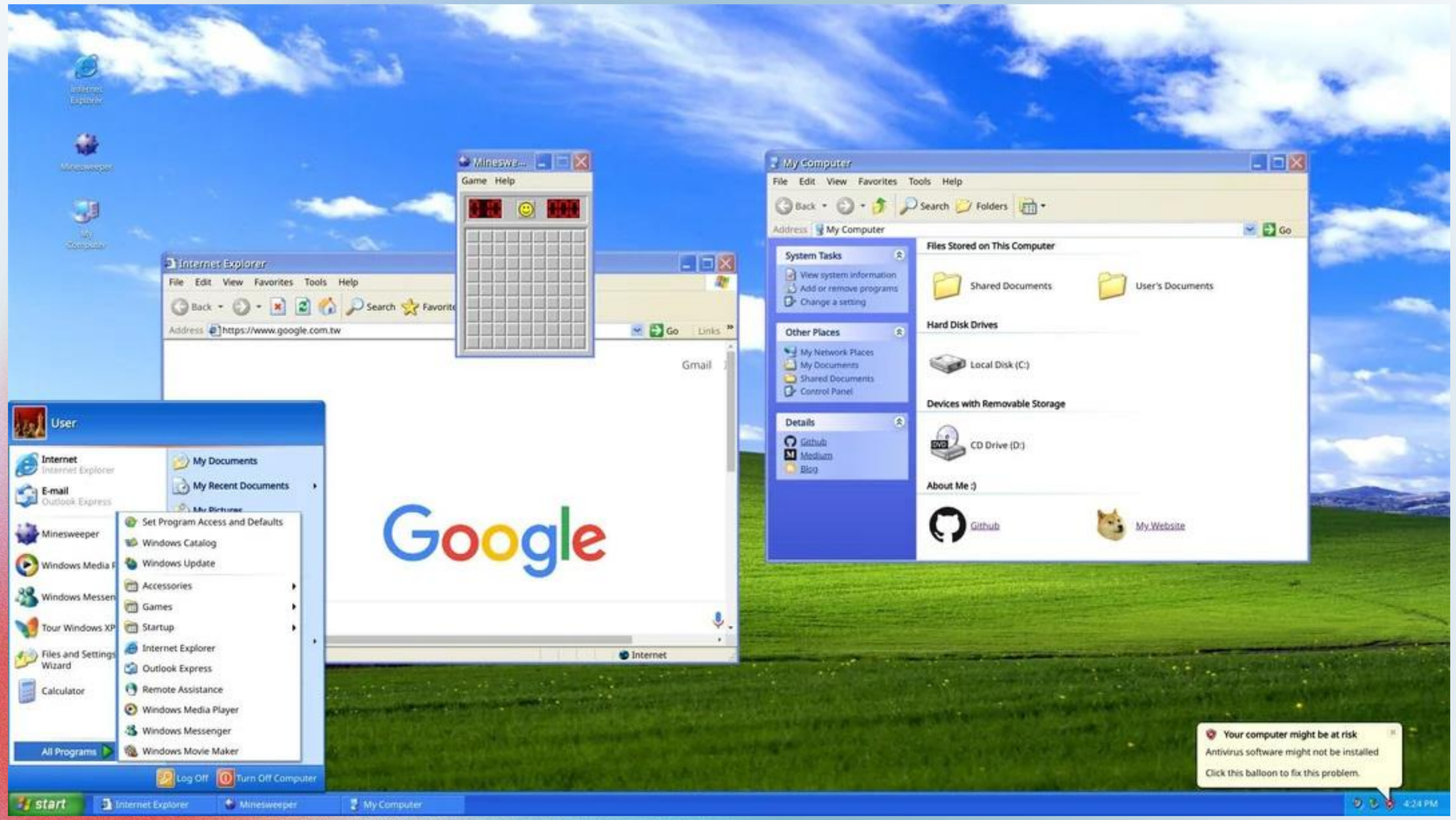
LENGUAJE DE ALTO NIVEL

enlace



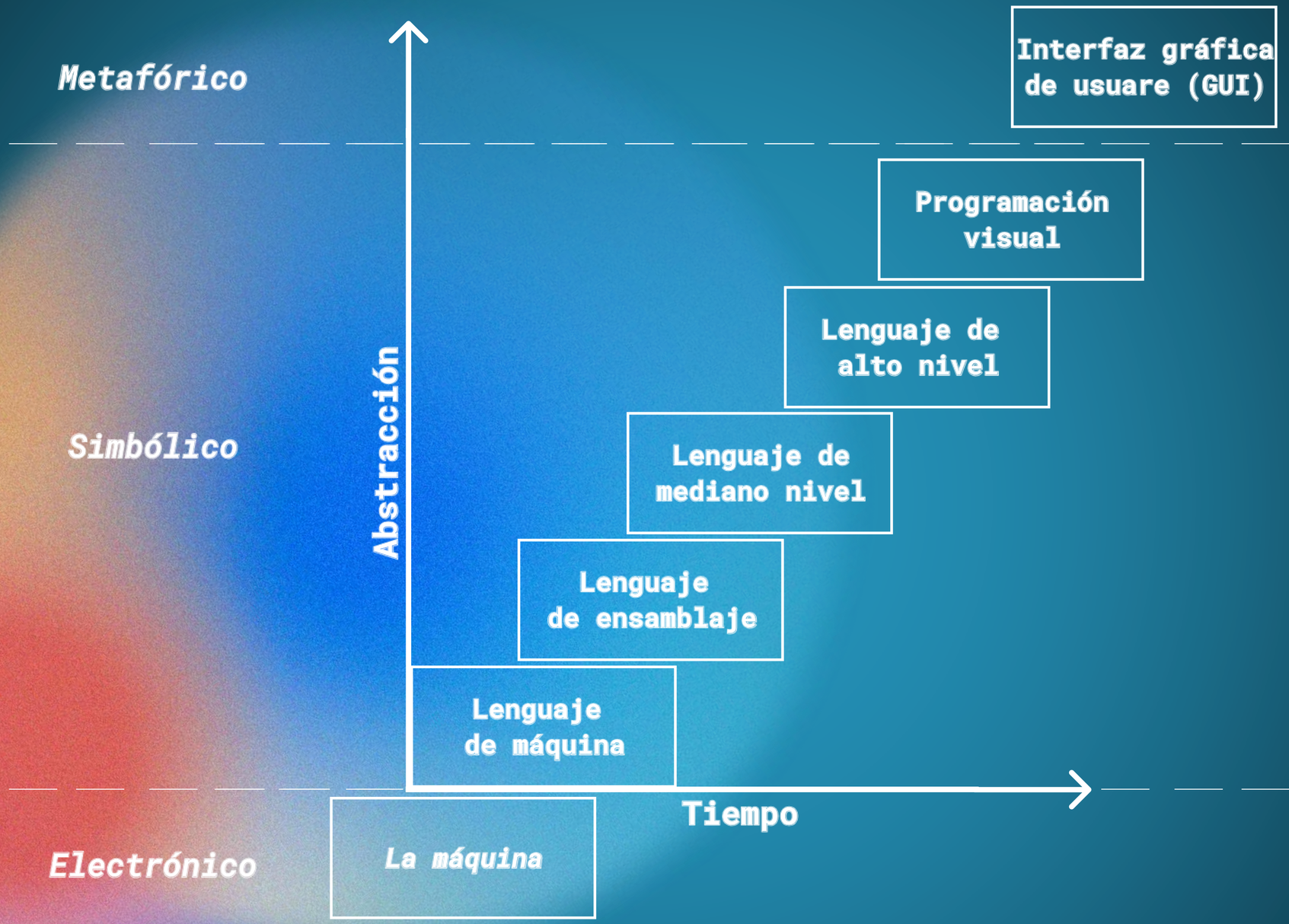
PROGRAMACIÓN VISUAL

enlace



INTERFAZ GRÁFICA DE USUARIE

enlace


Metafórico
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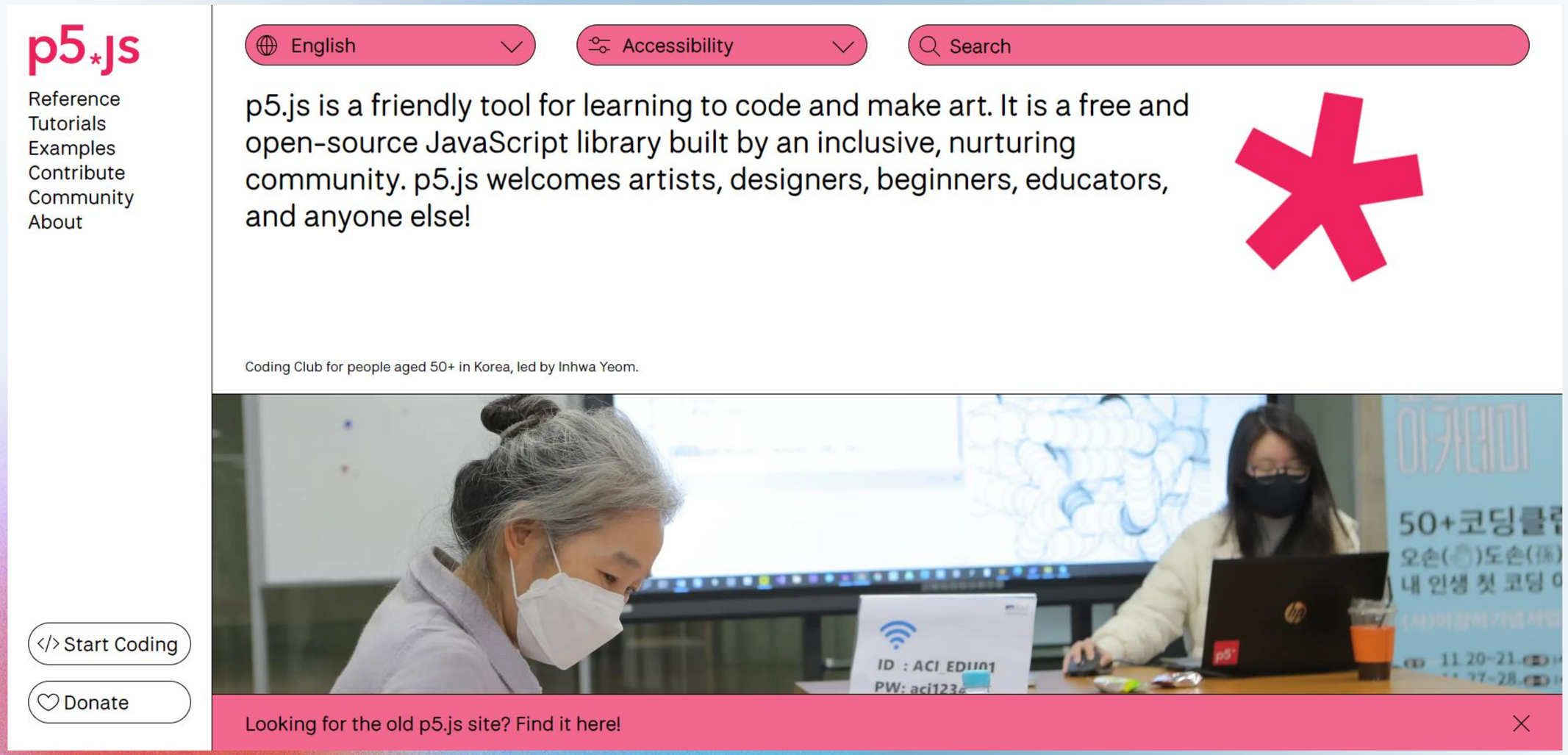


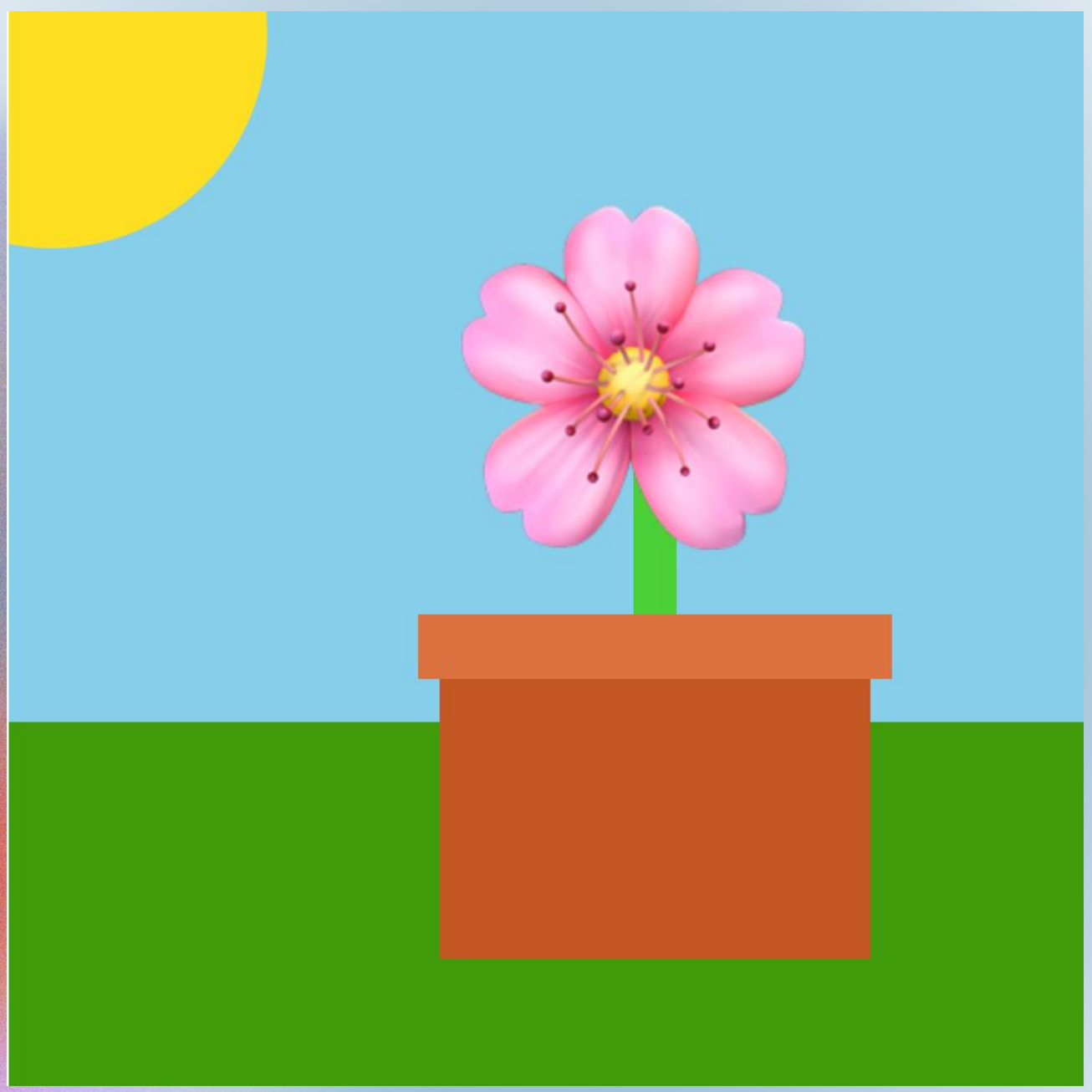
‘P5.JS’ (2013)
LAUREN MCARTHY
enlace

¡HOLA MUNDO!

CÓDIGO EJERCICIO 1

```
function setup() {
  createCanvas(500, 500);
  // console.log("¡hola mundo!");
}

function draw() {
  background(220);
  text("¡hola mundo!", 215, 250);
}
```

DIBUJO BÁSICO

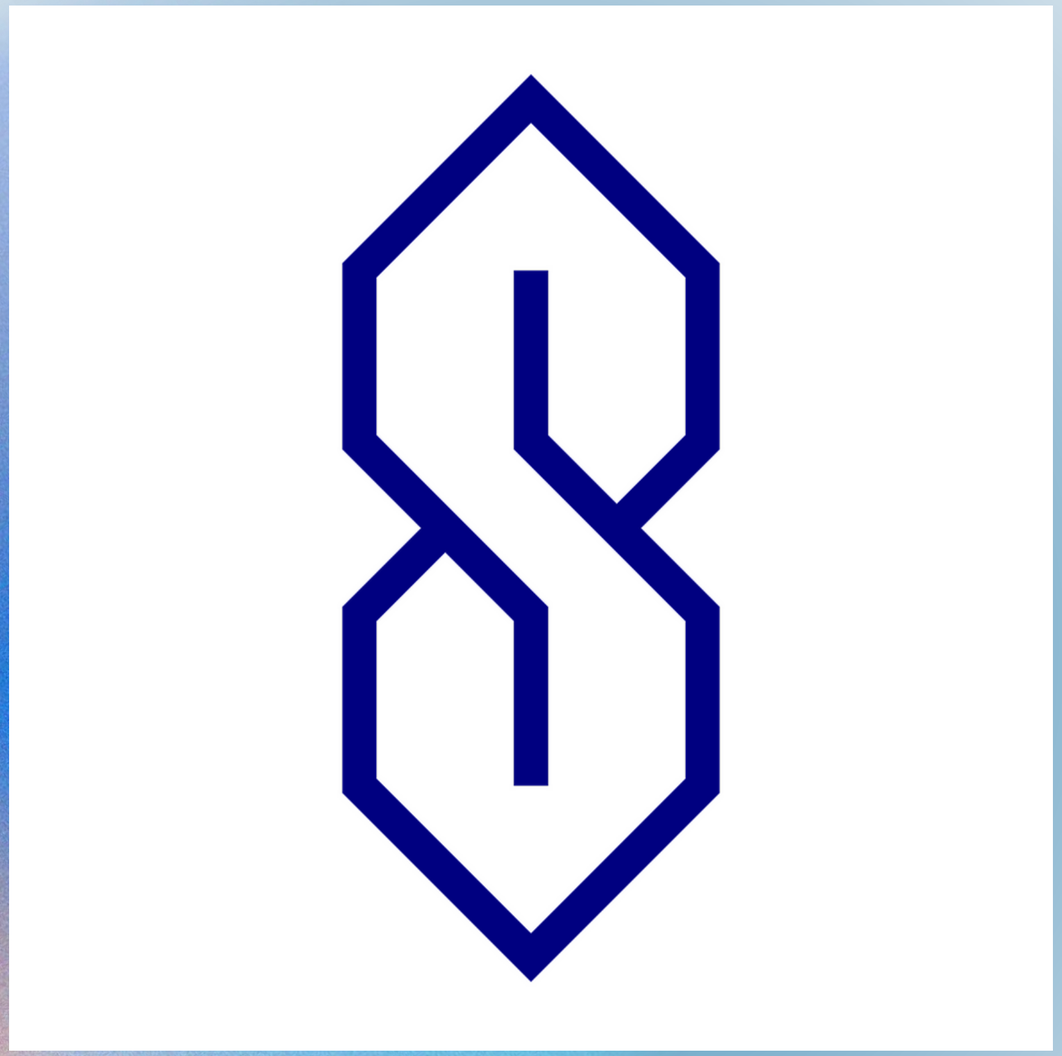


CÓDIGO EJERCICIO 2

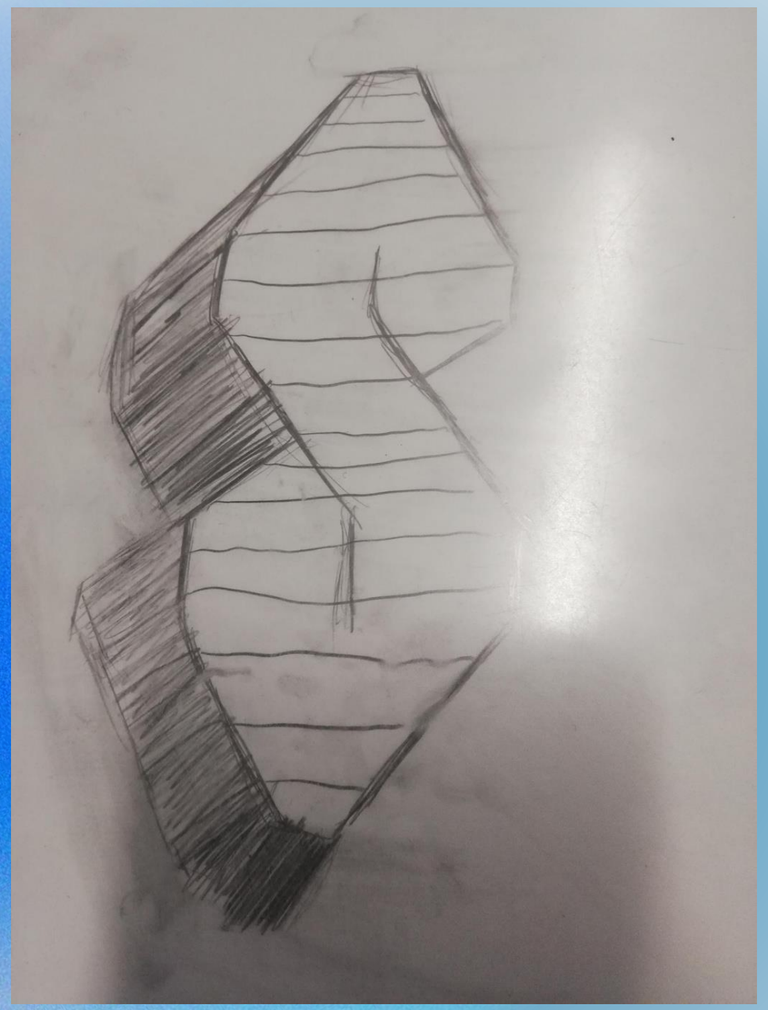
```
let alienX = 0;

function setup() {
  createCanvas(500, 500);
}

function draw() {
  background(135, 206, 235);
  frameRate(15);

  noStroke();
  fill(63, 155, 11);
  rect(0, 330, 500, 500);

  fill(255, 223, 34);
  ellipse(20, 10, 200);

  fill(76,208,56);
  rect(290, 200, 20, 200);

  fill(196, 88, 36);
  rect(200, 280, 200, 160);

  fill(220,114,63);
  rect(190, 280, 220, 30);

  alienX = frameCount*4 % width*2;

  textSize(100);
  text("🛸", -200+alienX, 160);

  textSize(160);
  text("🌸", 210, 230);

}
```

SISTEMAS Y DESCOMPOSICIONES

Prof. Victor Torres Rodríguez I UPR Caribe Digital I Taller de Codificación @ UPR-RP I 2025.04.11



‘COOL S’ (S.F.)
ANÓNIMO
enlace



‘COOL S’ (S.F.)
ANÓNIMO
enlace

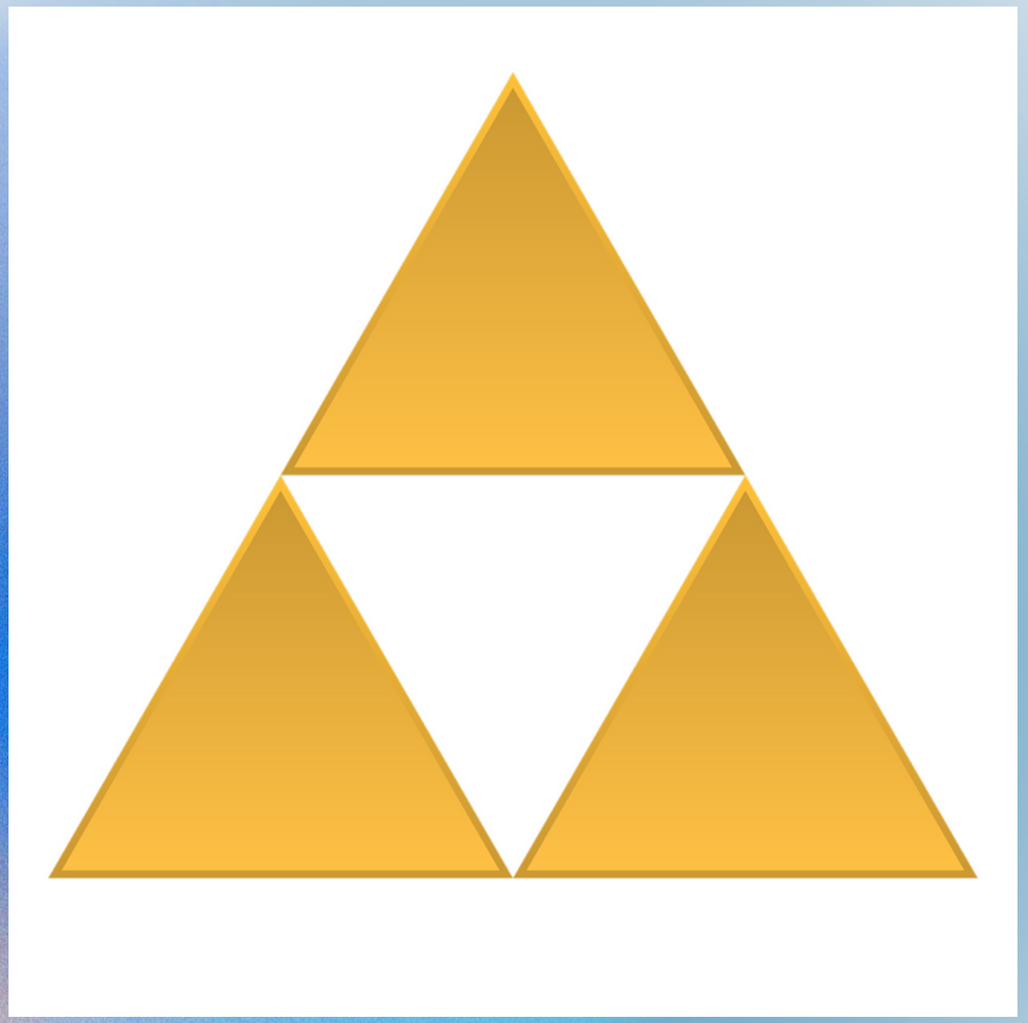
1- Dibuja un triángulo equilátero apuntando hacia arriba que ocupe la mayor parte de la hoja.

2- Marca suavemente el punto medio de cada lado de ese triángulo.

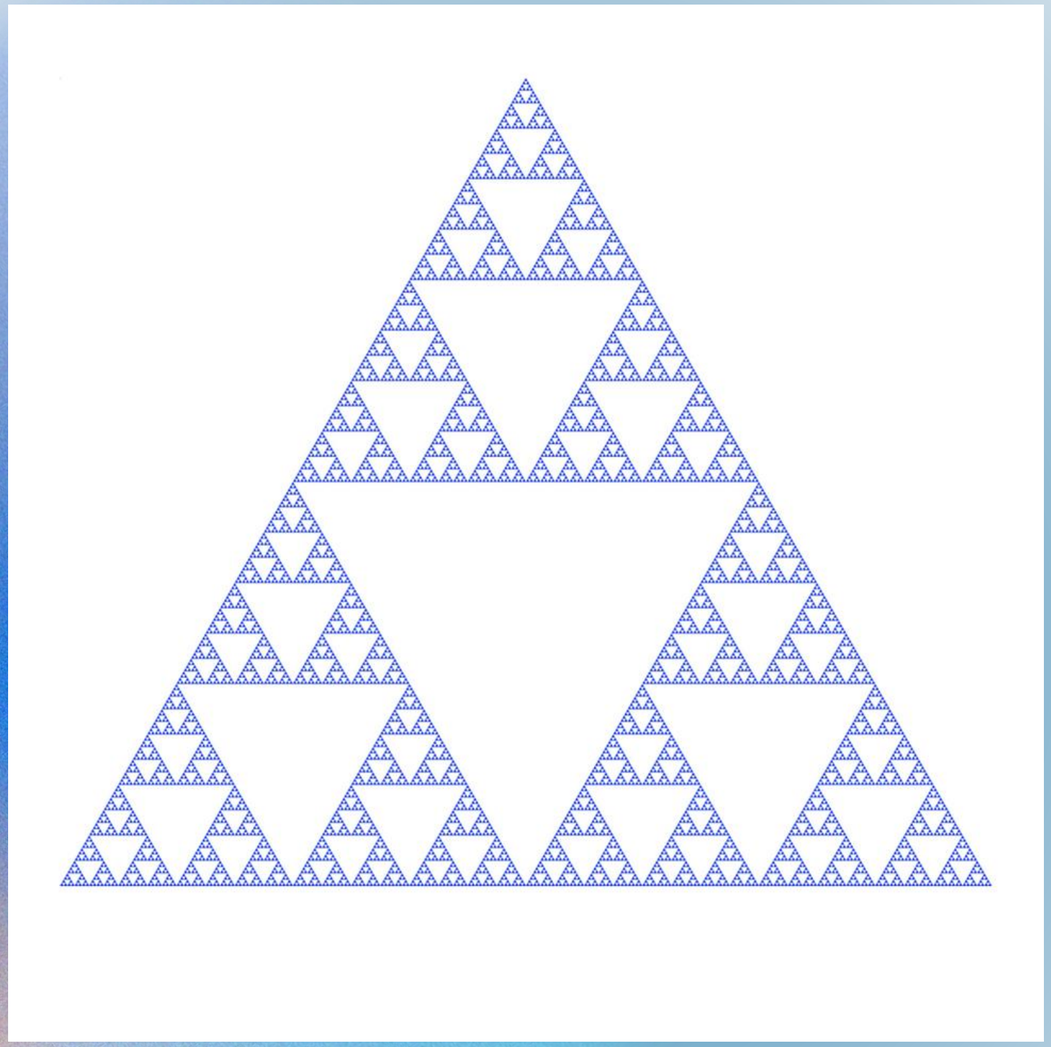
3- Dibuja líneas rectas que conecten cada uno de esos puntos. Esto formará cuatro nuevos triángulos: tres que apuntan hacia arriba y uno que apunta hacia abajo.

4- Elige cualquier triángulo vacío que apunte hacia arriba en la página.

5- Ve a la instrucción 2.



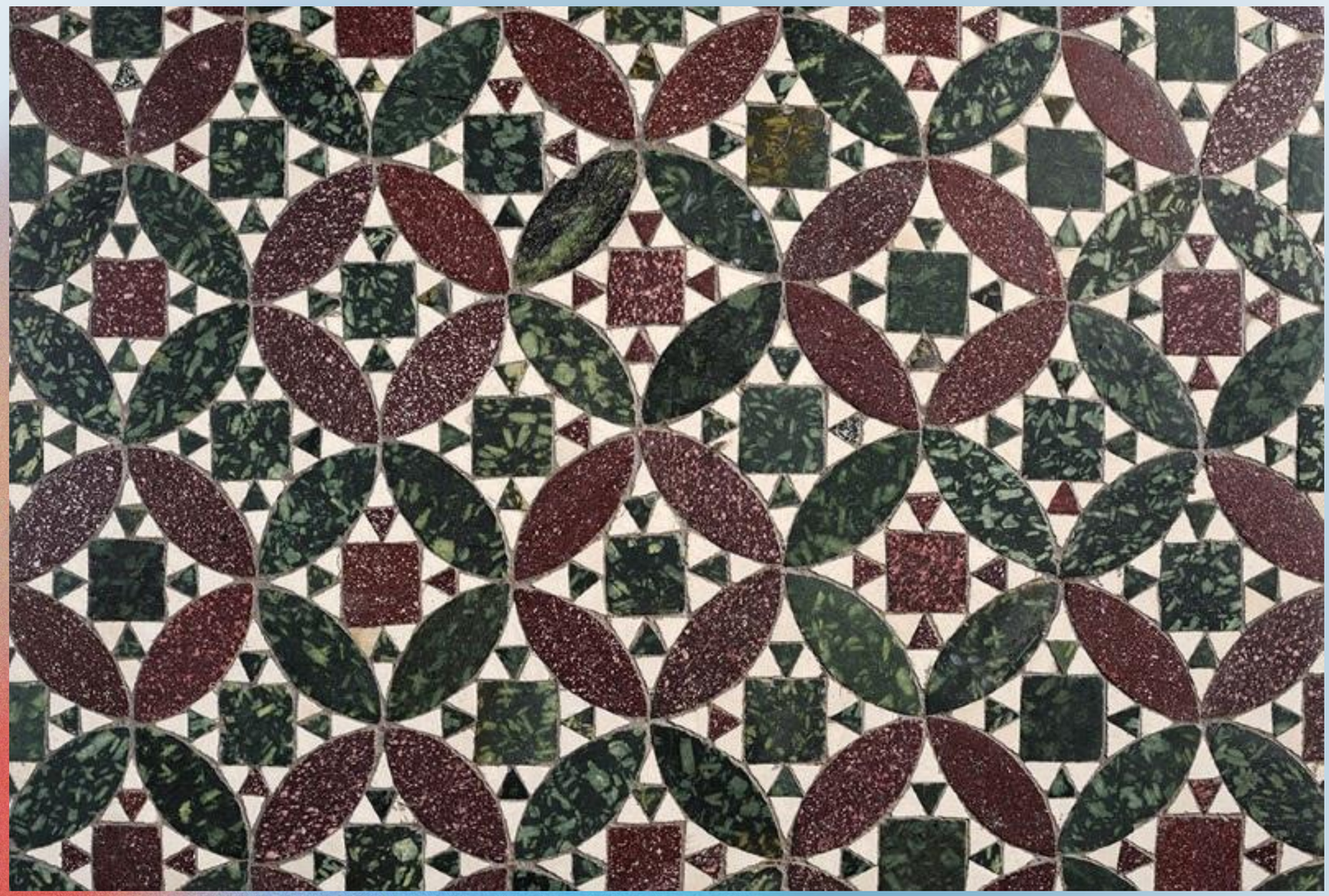
‘LA TRIFUERZA’ (1986)
THE LEGEND OF ZELDA
enlace



‘TRIÁNGULO DE SIERPINSKI’ (1915)

WACŁAW SIERPIŃSKI

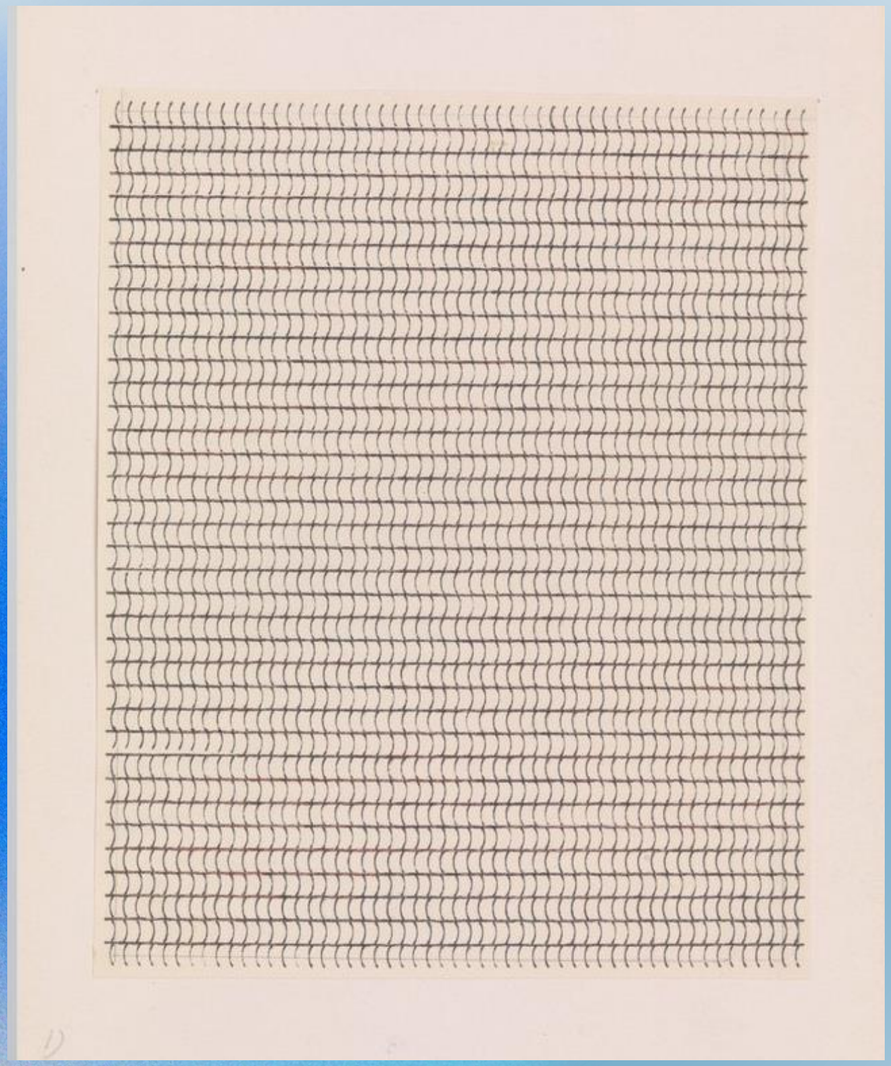
enlace



‘PISO DE LA SEGUNDA BASÍLICA DE SAN CLEMENTE’ (1123)

ANÓNIMO

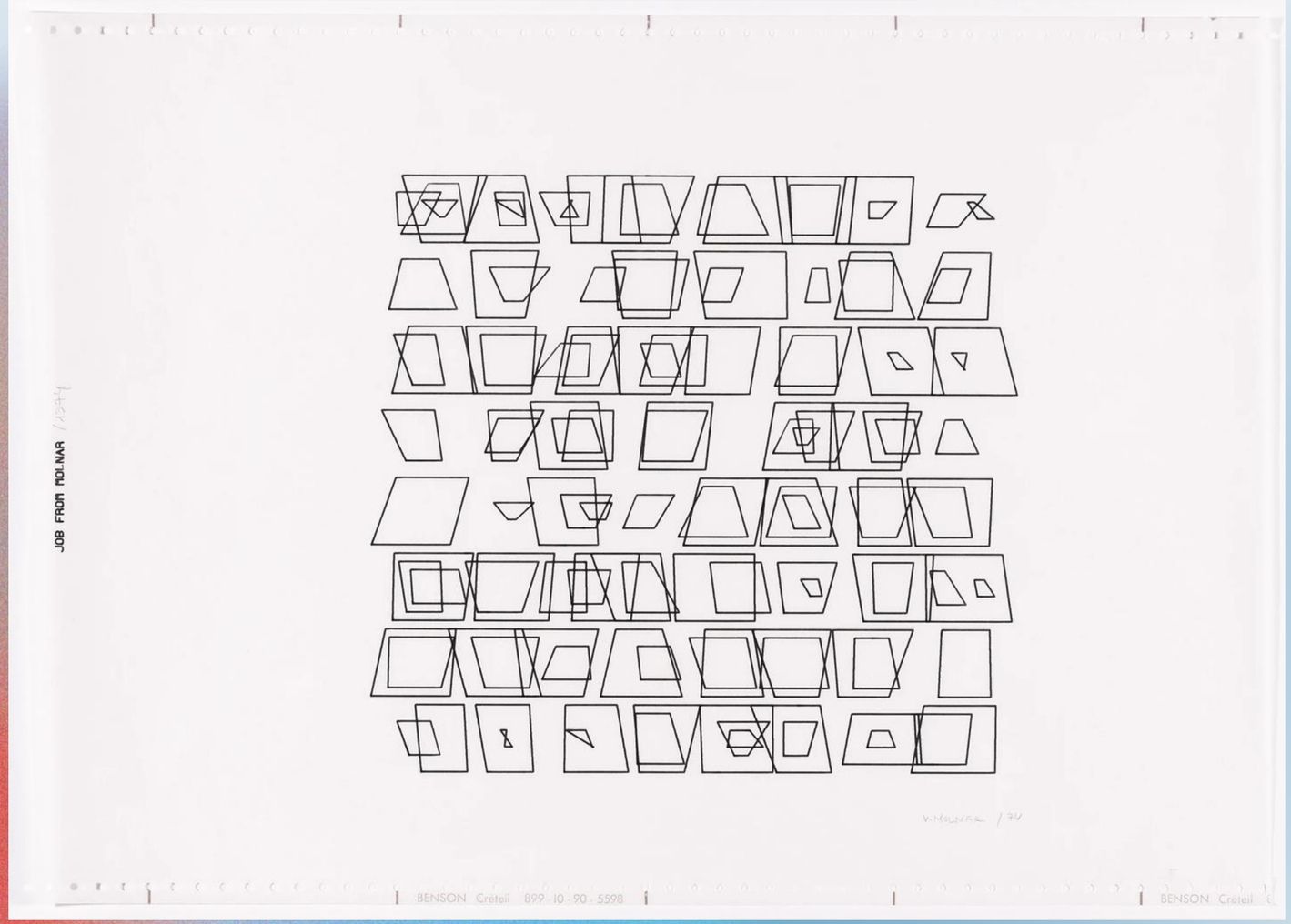
enlace



‘ESTUDIO TIPOGRÁFICO’ (S.F.)

ANNI ALBERS

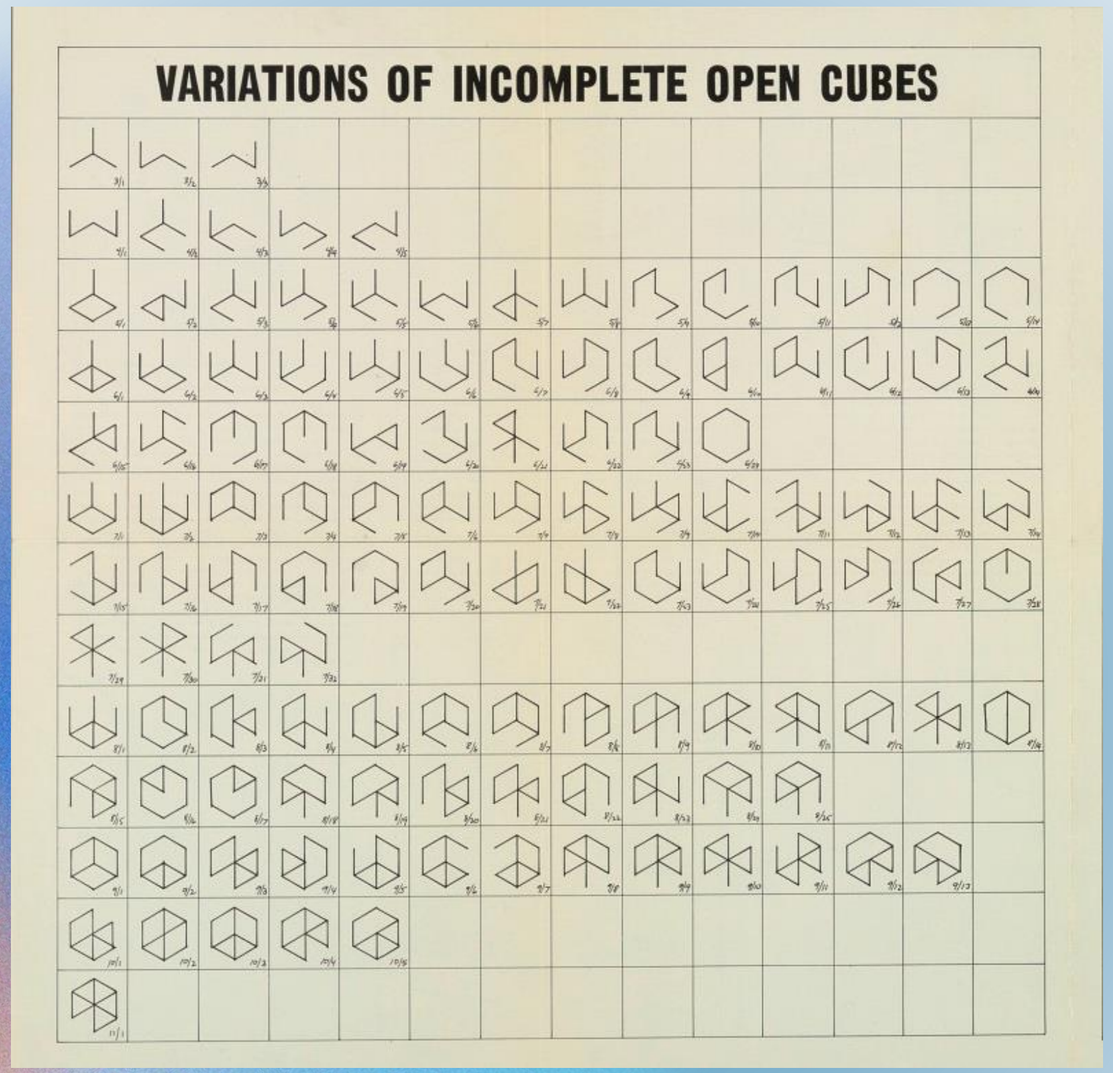
enlace



‘SIN TÍTULO [MV457-3]’ (1974)

VERA MOLNAR

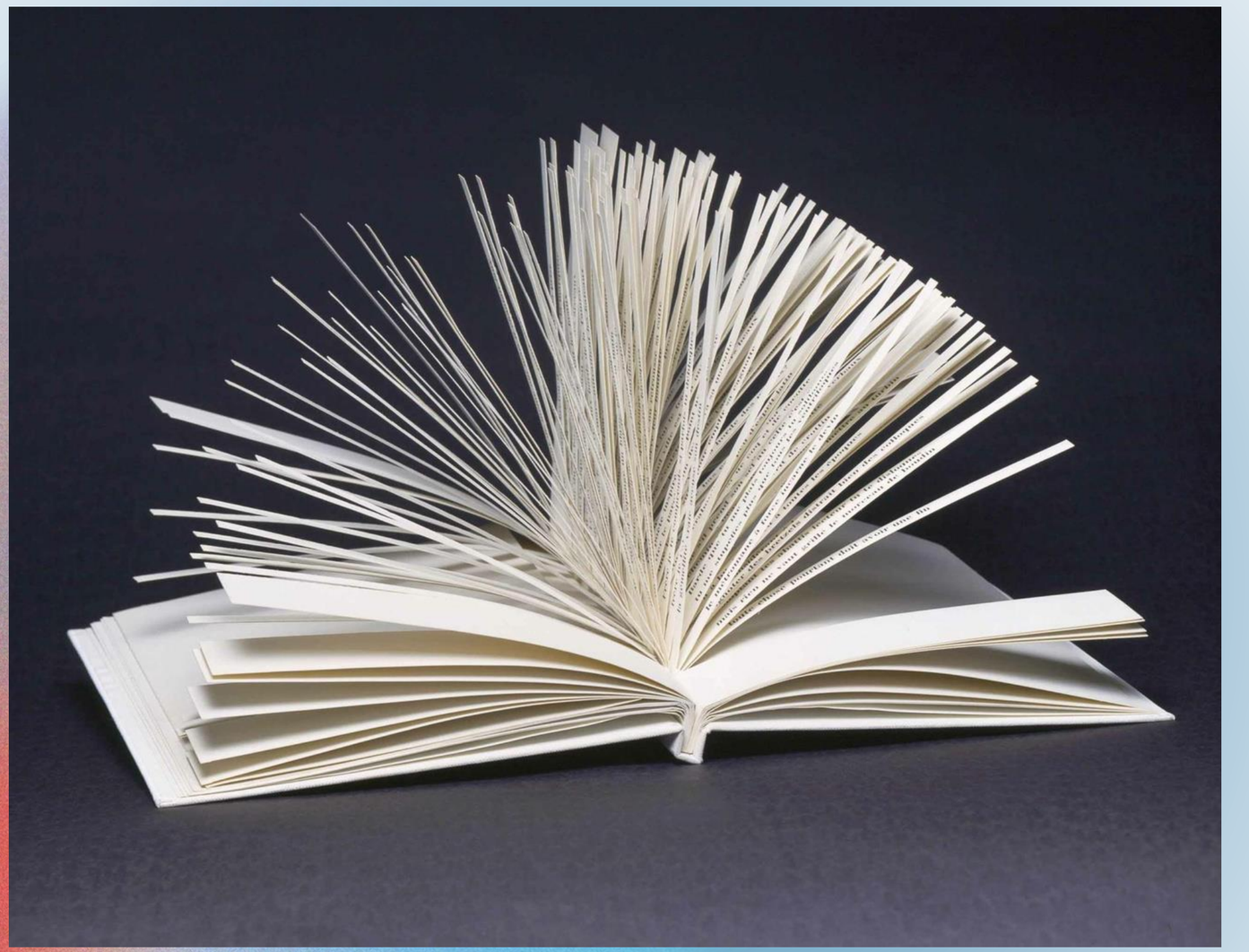
enlace



‘VARIACIONES DE CUBOS ABIERTOS INCOMPLETOS’ (1974)

SOL LEWITT

enlace

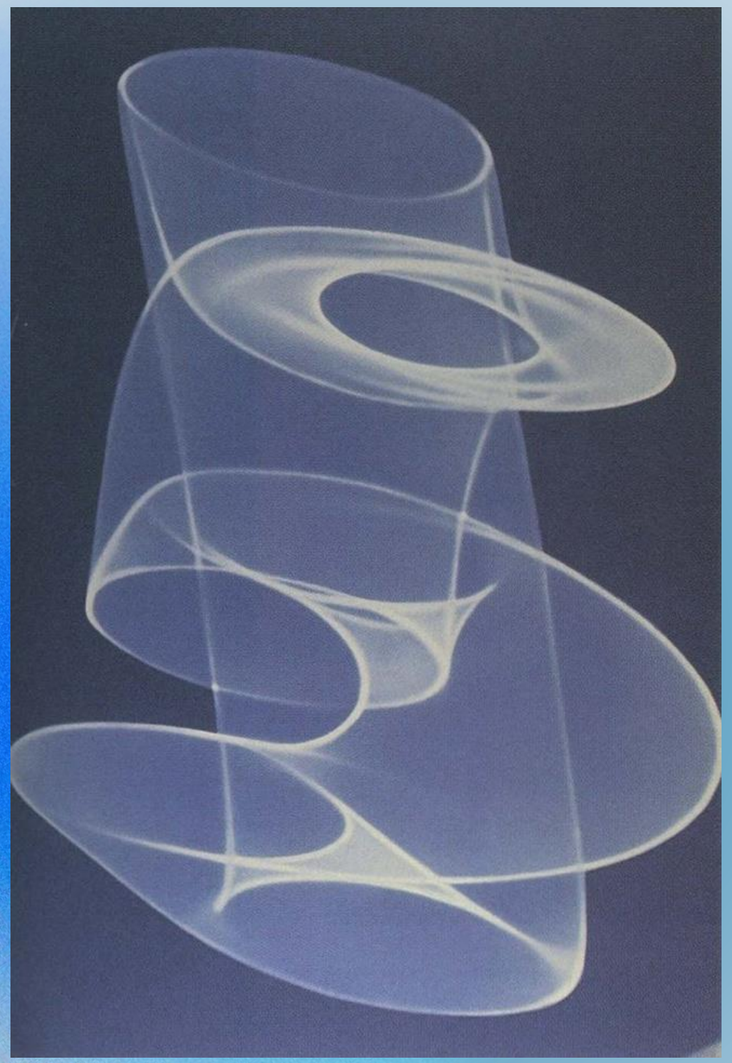


‘CIEN MIL MILLONES DE POEMAS’ (1961)

RAYMOND QUENEAU

enlace

DIBUJO A DISTANCIA (2019)
TONY CRUZ PABÓN
enlace



‘OSCILOGRAMA’ (1961-1962)

HERBERT W. FRANKE

enlace

'THE EXPANDING UNIVERSE' (1980)

LAURIE SPIEGEL

enlace

‘EXTRUDED BLOB #1' (2016)
ZACH LIEBERMAN
enlace

‘MORPH FORM’ (2024)

VERA VAN DE SEYP

enlace

EXPLORACIÓN LIBRE CON LIBRERÍA P5.JS

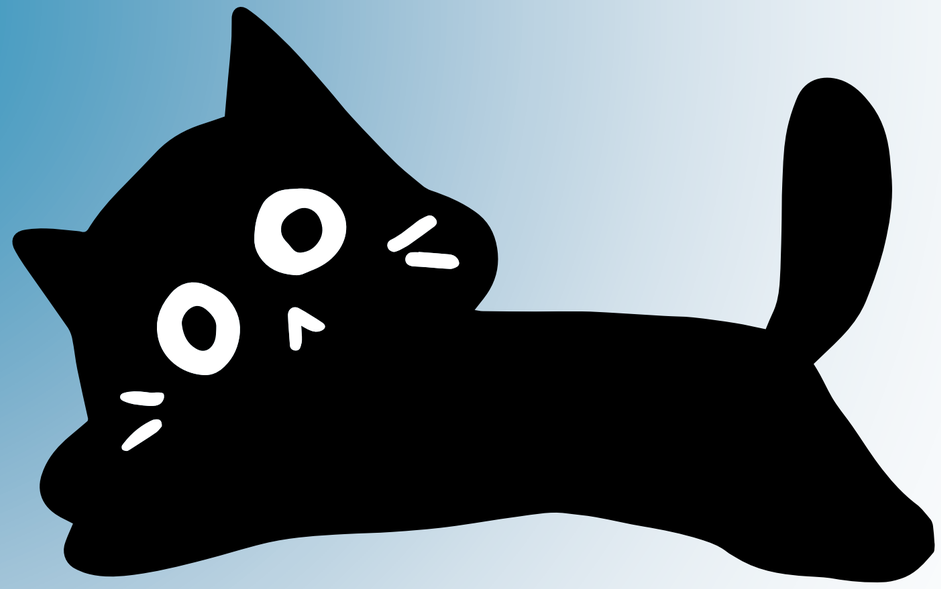
Prof. Victor Torres Rodríguez I UPR Caribe Digital I Taller de Codificación @ UPR-RP I 2025.04.11

CÓDIGO EJERCICIO 4

```
let font;

function preload() {
  font = loadFont('/inconsolata.otf');
}

function setup() {
  createCanvas(100, 100, WEBGL);
  textFont(font);
  textSize(32);
  textAlign(CENTER, CENTER);
}

function draw() {
  background(0);
  rotateY(frameCount / 30);
  text('p5*js', 0, 0);

  describe('debes iniciar sesión e
importar el file de la tipografía
descrita en la línea 4 de este
código. de otro modo, no se va a
ejecutar .');
}
```

Conclusión

Referencias



P5.js

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Coding Train

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Comp Form

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School for Poetic Computation

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GRACIAS POR SU ATENCIÓN

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